



SEQUENCE LISTING

<110> Hudson, Thomas J. Engert, James C. Richter, Andrea

<120> IDENTIFICATION OF ARSACS MUTATIONS AND METHODS OF USE THEREFOR

<130> 2825.1021-003

<140> US 09/693,205
<141> 2000-10-20

<150> US 60/160,588
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Leu Arg Gln Ile Gly Leu Lys Asn Glu Ala Ser Leu Lys Glu Lys Asp Val Val Gln Val Ala Lys Lys Ile Glu Ala Leu Gln Val Gly Ala Cys Pro Asp Gln Asp Val Leu Leu Lys Lys Ala Lys Thr Leu Leu Val Leu Asn Lys Asn His Thr Leu Leu Gln Ser Ser Glu Gly Lys Met Thr Leu Lys Lys Ile Lys Trp Val Pro Ala Cys Lys Glu Arg Pro Pro Asn Tyr Pro Gly Ser Leu Val Trp Lys Gly Asp Leu Cys Asn Leu Cys Ala Pro Pro Asp Met Cys Asp Val Gly His Ala Ile Leu Ile Gly Ser Ser Leu Pro Leu Val Glu Ser Ile His Val Asn Leu Glu Lys Ala Leu Gly Ile Phe Thr Lys Pro Ser Leu Ser Ala Val Leu Lys His Phe Lys Ile Val Val Asp Trp Tyr Ser Ser Lys Thr Phe Ser Asp Glu Asp Tyr Tyr Gln Phe Gln His Ile Leu Leu Glu Ile Tyr Gly Phe Met His Asp His Leu Asn Glu Gly Lys Asp Ser Phe Arg Ala Leu Lys Phe Pro Trp Val Trp Thr Gly Lys Lys Phe Cys Pro Leu Ala Gln Ala Val Ile Lys Pro Ile His Asp Leu Asp Leu Gln Pro Tyr Leu His Asn Val Pro Lys Thr Met Ala Lys Phe His Gln Leu Phe Lys Val Cys Gly Ser Ile Glu Glu Leu Thr Ser Asp His Ile Ser Met Val Ile Gln Lys Ile Tyr Leu Lys Ser Asp Gln Asp Leu Ser Glu Gln Glu Ser Lys Gln Asn Leu His Leu Met Leu Asn Ile Ile Arg Trp Leu Tyr Ser Asn Gln Ile Pro Ala Ser Pro Asn Thr Pro Val Pro Ile His His Ser Lys Asn Pro Ser Lys Leu Ile Met Lys Pro Ile His Glu Cys Cys Tyr Cys Asp Ile Lys Val Asp Asp Leu Asn Asp Leu Leu Glu Asp Ser Val Glu Pro Ile Ile Leu Val His Glu Asp Ile Pro Met Lys Thr Ala Glu Trp Leu Lys Val Pro Cys Leu Ser Thr Arg Leu Ile Asn Pro Glu Asn Met Gly Phe Glu Gln Ser Gly Gln Arg Glu Pro Leu Thr Val Arg Ile Lys Asn Ile Leu Glu Glu Tyr Pro Ser Val Ser Asp Ile Phe Lys Glu Leu Leu Gln Asn Ala Asp Asp Ala Asn Ala Thr Glu Cys Ser Phe Leu Ile Asp Met Arg Arg Asn Met Asp Ile Arg Glu Asn Leu Leu Asp Pro Gly Met Ala Ala Cys His Gly Pro Ala Leu Trp Ser Phe Asn Asn Ser Gln Phe Ser Asp Ser Asp Phe Val Asn Ile Thr Arg Leu Gly Glu Ser Leu Lys Arg Gly Glu Val

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Asp Lys Val Gly Lys Phe Gly Leu Gly Phe Asn Ser Val Tyr His Ile Thr Asp Ile Pro Ile Ile Met Ser Arg Glu Phe Met Ile Met Phe Asp Pro Asn Ile Asn His Ile Ser Lys His Ile Lys Asp Lys Ser Asn Pro Gly Ile Lys Ile Asn Trp Ser Lys Gln Gln Lys Arg Leu Arg Lys Phe Pro Asn Gln Phe Lys Pro Phe Ile Asp Val Phe Gly Cys Gln Leu Pro Leu Thr Val Glu Ala Pro Tyr Ser Tyr Asn Gly Thr Leu Phe Arg Leu Ser Phe Arg Thr Gln Gln Glu Ala Lys Val Ser Glu Val Ser Ser Thr Cys Tyr Asn Thr Ala Asp Ile Tyr Ser Leu Val Asp Glu Phe Ser Leu Cys Gly His Arg Leu Ile Ile Phe Thr Gln Ser Val Lys Ser Met Tyr Leu Lys Tyr Leu Lys Ile Glu Glu Thr Asn Pro Ser Leu Ala Gln Asp Thr Val Ile Ile Lys Lys Ser Cys Ser Ser Lys Ala Leu Asn Thr Pro Val Leu Ser Val Leu Lys Glu Ala Ala Lys Leu Met Lys Thr Cys Ser Ser Ser Asn Lys Lys Leu Pro Ser Asp Glu Pro Lys Ser Ser Cys Ile Leu Gln Ile Thr Val Glu Glu Phe His His Val Phe Arg Arg Ile Ala Asp Leu Gln Ser Pro Leu Phe Arg Gly Pro Asp Asp Asp Pro Ala 1025 1030 Ala Leu Phe Glu Met Ala Lys Ser Gly Gln Ser Lys Lys Pro Ser Asp Glu Leu Ser Gln Lys Thr Val Glu Cys Thr Thr Trp Leu Leu Cys Thr Cys Met Asp Thr Gly Glu Ala Leu Lys Phe Ser Leu Ser Glu Ser Gly Arg Arg Leu Gly Leu Val Pro Cys Gly Ala Val Gly Val Gln Leu Ser Glu Ile Gln Asp Gln Lys Trp Thr Val Lys Pro His Ile Gly Glu Val Phe Cys Tyr Leu Pro Leu Arg Ile Lys Thr Gly Leu Pro Val His Ile Asn Gly Cys Phe Ala Val Thr Ser Asn Arg Lys Glu Ile Trp Lys Thr 1140 1145 Asp Thr Lys Gly Arg Trp Asn Thr Thr Phe Met Arg His Val Ile Val Lys Ala Tyr Leu Gln Val Leu Ser Val Leu Arg Asp Leu Ala Thr Ser Gly Glu Leu Met Asp Tyr Thr Tyr Tyr Ala Val Trp Pro Asp Pro Asp Leu Val His Asp Asp Phe Ser Val Ile Cys Gln Gly Phe Tyr Glu Asp Ile Ala His Gly Lys Gly Lys Glu Leu Thr Lys Val Phe Ser Asp Gly Ser Thr Trp Val Ser Met Lys Asn Val Arg Phe Leu Asp Asp Ser Ile Leu Lys Arg Arg Asp Val Gly Ser Ala Ala Phe Lys Ile Phe Leu Lys

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Tyr Leu Lys Lys Thr Gly Ser Lys Asn Leu Cys Ala Val Glu Leu Pro Ser Ser Val Lys Leu Gly Phe Glu Glu Ala Gly Cys Lys Gln Ile Leu Leu Glu Asn Thr Phe Ser Glu Lys Gln Phe Phe Ser Glu Val Phe Phe Pro Asn Ile Gln Glu Ile Glu Ala Glu Leu Arg Asp Pro Leu Met Ile Phe Val Leu Asn Glu Lys Val Asp Glu Phe Ser Gly Val Leu Arg Val Thr Pro Cys Ile Pro Cys Ser Leu Glu Gly His Pro Leu Val Leu Pro Ser Arg Leu Ile His Pro Glu Gly Arg Val Ala Lys Leu Phe Asp Ile Lys Asp Gly Arg Phe Pro Tyr Gly Ser Thr Gln Asp Tyr Leu Asn Pro Ile Ile Leu Ile Lys Leu Val Gln Leu Gly Lys Ala Lys Asp Asp Ile Leu Trp Asp Asp Met Leu Glu Arg Ala Val Ser Val Ala Glu Ile Asn Lys Ser Asp His Val Ala Ala Cys Leu Arg Ser Ser Ile Leu Leu Ser Leu Ile Asp Glu Lys Leu Lys Ile Arg Asp Pro Arg Ala Lys Asp Phe Ala Ala Lys Tyr Gln Thr Ile Arg Phe Leu Pro Phe Leu Thr Lys Pro Ala Gly Phe Ser Leu Asp Trp Lys Gly Asn Ser Phe Lys Pro Glu Thr Met Phe Ala Ala Thr Asp Leu Tyr Thr Ala Glu His Gln Asp Ile Val Cys Leu Leu Gln Pro Ile Leu Asn Glu Asn Ser His Ser Phe Arg Gly Cys Gly Ser Val Ser Leu Ala Val Lys Glu Phe Leu Gly Leu Leu Lys Lys Pro Thr Val Asp Leu Val Ile Asn Gln Leu Lys Glu Val Ala Lys Ser Val Asp Asp Gly Ile Thr Leu Tyr Gln Glu Asn Ile Thr Asn Ala Cys Tyr Lys Tyr Leu His Glu Ala Leu Met Gln Asn Glu Ile Thr Lys Met Ser Ile Ile Asp Lys Leu Lys Pro Phe Ser Phe Ile Leu Val Glu Asn Ala Tyr Val Asp Ser Glu Lys Val Ser Phe His Leu Asn Phe Glu Ala Ala Pro Tyr Leu Tyr Gln Leu Pro Asn Lys Tyr Lys Asn Asn Phe Arg Glu Leu Phe Glu Thr Val Gly Val Arg Gln Ser Cys Thr Val Glu Asp Phe Ala Leu Val Leu Glu Ser Ile Asp Gln Glu Arg Gly Thr Lys Gln Ile Thr Glu Glu Asn Phe Gln Leu Cys Arg Arg Ile Ile Ser Glu Gly Ile Trp Ser Leu Ile Arg Glu Lys Lys Gln Glu Phe Cys Glu Lys Asn Tyr Gly Lys Ile Leu Leu Pro Asp Thr Asn Leu Met Leu Leu Pro Ala Lys Ser Leu Cys Tyr Asn Asp Cys Pro Trp Ile Lys Val Lys Asp 1715 1720

Thr Thr Val Lys Tyr Cys His Ala Asp Ile Pro Arg Glu Val Ala Val Lys Leu Gly Ala Val Pro Lys Arg His Lys Ala Leu Glu Arg Tyr Ala Ser Asn Val Cys Phe Thr Thr Leu Gly Thr Glu Phe Gly Gln Lys Glu Lys Leu Thr Ser Arg Ile Lys Ser Ile Leu Asn Ala Tyr Pro Ser Glu 1780 1785 Lys Glu Met Leu Lys Glu Leu Leu Gln Asn Ala Asp Asp Ala Lys Ala Thr Glu Ile Cys Phe Val Phe Asp Pro Arg Gln His Pro Val Asp Arg Ile Phe Asp Asp Lys Trp Ala Pro Leu Gln Gly Pro Ala Leu Cys Val Tyr Asn Asn Gln Pro Phe Thr Glu Asp Asp Val Arg Gly Ile Gln Asn Leu Gly Lys Gly Thr Lys Glu Gly Asn Pro Tyr Lys Thr Gly Gln Tyr Gly Ile Gly Phe Asn Ser Val Tyr His Ile Thr Asp Cys Pro Ser Phe Ile Ser Gly Asn Asp Ile Leu Cys Ile Phe Asp Pro His Ala Arg Tyr 1890 1895 Ala Pro Gly Ala Thr Ser Ile Ser Pro Gly Arg Met Phe Arg Asp Leu Asp Ala Asp Phe Arg Thr Gln Phe Ser Asp Val Leu Asp Leu Tyr Leu Gly Thr His Phe Lys Leu Asp Asn Cys Thr Met Phe Arg Phe Pro Leu Arg Asn Ala Glu Met Ala Lys Val Ser Glu Ile Ser Ser Val Pro Ala 1955 1960 Ser Asp Arg Met Val Gln Asn Leu Leu Asp Lys Leu Arg Ser Asp Gly 1970 1975 Ala Glu Leu Leu Met Phe Leu Asn His Met Glu Lys Ile Ser Ile Cys 1990 1995 Glu Ile Asp Lys Ser Thr Gly Ala Leu Asn Val Leu Tyr Ser Val Lys Gly Lys Ile Thr Asp Gly Asp Arg Leu Lys Arg Lys Gln Phe His Ala Ser Val Ile Asp Ser Val Thr Lys Lys Arg Gln Leu Lys Asp Ile Pro 2035 2040 Val Gln Gln Ile Thr Tyr Thr Met Asp Thr Glu Asp Ser Glu Gly Asn 2050 2055 Leu Thr Trp Leu Ile Cys Asn Arg Ser Gly Phe Ser Ser Met Glu Lys Val Ser Lys Ser Val Ile Ser Ala His Lys Asn Gln Asp Ile Thr Leu Phe Pro Arg Gly Gly Val Ala Ala Cys Ile Thr His Asn Tyr Lys Lys Pro His Arg Ala Phe Cys Phe Leu Pro Leu Ser Leu Glu Thr Gly Leu Pro Phe His Val Asn Gly His Phe Ala Leu Asp Ser Ala Arg Arg Asn Leu Trp Arg Asp Asp Asn Gly Val Gly Val Arg Ser Asp Trp Asn Asn Ser Leu Met Thr Ala Leu Ile Ala Pro Ala Tyr Val Glu Leu Leu Ile Gln Leu Lys Lys Arg Tyr Phe Pro Gly Ser Asp Pro Thr Leu Ser

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Val Leu Gln Asn Thr Pro Ile His Val Val Lys Asp Thr Leu Lys Lys 2200 2195 2205 Phe Leu Ser Phe Phe Pro Val Asn Arg Leu Asp Leu Gln Pro Asp Leu 2215 2220 Tyr Cys Leu Val Lys Ala Leu Tyr Asn Cys Ile His Glu Asp Met Lys 2230 2235 Arg Leu Leu Pro Val Val Arg Ala Pro Asn Ile Asp Gly Ser Asp Leu 2250 2245 His Ser Ala Val Ile Ile Thr Trp Ile Asn Met Ser Thr Ser Asn Lys 2260 2265 Thr Arg Pro Phe Phe Asp Asn Leu Leu Gln Asp Glu Leu Gln His Leu 2280 2285 Lys Asn Ala Asp Tyr Asn Ile Thr Thr Arg Lys Thr Val Ala Glu Asn 2295 2300 Val Tyr Arg Leu Lys His Leu Leu Leu Glu Ile Gly Phe Asn Leu Val 2310 2315 Tyr Asn Cys Asp Glu Thr Ala Asn Leu Tyr His Cys Leu Ile Asp Ala 2325 2330 Asp Ile Pro Val Ser Tyr Val Thr Pro Ala Asp Ile Arg Ser Phe Leu 2345 2340 2350 Met Thr Phe Ser Ser Pro Asp Thr Asn Cys His Ile Gly Lys Leu Pro 2360 2365 2355 Cys Arg Leu Gln Gln Thr Asn Leu Lys Leu Phe His Ser Leu Lys Leu 2375 2380 Leu Val Asp Tyr Cys Phe Lys Asp Ala Glu Glu Asn Glu Ile Glu Val 2390 2395 Glu Gly Leu Pro Leu Leu Ile Thr Leu Asp Ser Val Leu Gln Thr Phe 2405 2410 Asp Ala Lys Arg Pro Lys Phe Leu Thr Thr Tyr His Glu Leu Ile Pro 2420 2425 Ser Arg Lys Asp Leu Phe Met Asn Thr Leu Tyr Leu Lys Tyr Ser Asn 2440 2445 Ile Leu Leu Asn Cys Lys Val Ala Lys Val Phe Asp Ile Ser Ser Phe 2455 2460 Ala Asp Leu Leu Ser Ser Val Leu Pro Arg Glu Tyr Lys Thr Lys Ser 2465 2470 2475 Cys Thr Lys Trp Lys Asp Asn Phe Ala Ser Glu Ser Trp Leu Lys Asn 2485 2490 2495 Ala Trp His Phe Ile Ser Glu Ser Val Ser Val Lys Glu Asp Gln Glu 2500 2505 2510 Glu Thr Lys Pro Thr Phe Asp Ile Val Val Asp Thr Leu Lys Asp Trp 2515 2520 2525 Ala Leu Leu Pro Gly Thr Lys Phe Thr Val Ser Ala Asn Gln Leu Val 2535 2540 Val Pro Glu Gly Asp Val Leu Leu Pro Leu Ser Leu Met His Ile Ala 2550 2555 Val Phe Pro Asn Ala Gln Ser Asp Lys Val Phe His Ala Leu Met Lys 2565 2570 Ala Gly Cys Ile Gln Leu Ala Leu Asn Lys Ile Cys Ser Lys Asp Ser 2580 2585 2590 Ala Phe Val Pro Leu Leu Ser Cys His Thr Ala Asn Ile Glu Ser Pro 2600 2605 Thr Ser Ile Leu Lys Ala Leu His Tyr Met Val Gln Thr Ser Thr Phe 2615 2620 Arg Ala Glu Lys Leu Val Glu Asn Asp Phe Glu Ala Leu Leu Met Tyr 2625 2630 2635 Phe Asn Cys Asn Leu Asn His Leu Met Ser Gln Asp Asp Ile Lys Ile 2645 2650

OS

Leu	Lys	Ser	Leu 2660		Cys	Tyr	Lys	Ser 2665		Ser	Gly	Arg	Tyr 2670		Ser
Ile	Gly	Lys 2679		Gly	Thr	Cys	Tyr 2680	Val	Leu	Thr	Lys	Ser 2685		Pro	Ser
Ala	Glu 2690		Glu	Lys	Trp	Thr 2699		Ser	Ser	Ser	Ser 2700		Phe	Leu	Glu
Glu 2705	_	Ile	His	Leu	Lys 271		Leu	Tyr	Glu	Val 271		Gly	Cys	Val	Pro 2720
Val	Asp	Asp	Leu	Glu 2725		Tyr	Leu	Lys	His 2730		Leu	Pro	Lys	Ile 2735	
Asn	Leu	Ser	Tyr 2740	_	Ala	Lys	Leu	Glu 2745		Leu	Ile	Tyr	Leu 2750		Asn
_		2755	5				2760				_	2765	5		
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2785	5		-		2790)	_	Arg		2799	5				2800
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	2850)				2859	5	Ile			2860)			
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	3010)	_			3019	5	Lys			3020)			
3025	5	_			3030)		Glu		3035	5				3040
Leu	Arg	Gly	Val	Ala 3045		Val	Met	Val	Glu 3050	_	Gly	Trp	Lys	Leu 3055	
_			3060)				Leu 3065	5	_			3070)	
Pro	Tyr	Leu 3075		Lys	Leu	Pro	Leu 3080	Glu)	Leu	Gly	Thr	Phe 3085		Gln	Leu
	3090)		_		3095	5	Ile			3100)			
Glu 3105		Leu	Ser	Arg	Ile 3110		Lys	Asn	Ser	Glu 3115		Lys	Gln	Leu	Asp 3120

Pro Asn Glu Met Arg Thr Val Lys Arg Val Val Ser Gly Leu Phe Arg Ser Leu Gln Asn Asp Ser Val Lys Val Arg Ser Asp Leu Glu Asn Val Arg Asp Leu Ala Leu Tyr Leu Pro Ser Gln Asp Gly Arg Leu Val Lys 3155 3160 Ser Ser Ile Leu Val Phe Asp Asp Ala Pro His Tyr Lys Ser Arg Ile 3170 3175 Gln Gly Asn Ile Gly Val Gln Met Leu Val Asp Leu Ser Gln Cys Tyr Leu Gly Lys Asp His Gly Phe His Thr Lys Leu Ile Met Leu Phe Pro Gln Lys Leu Arg Pro Arg Leu Leu Ser Ser Ile Leu Glu Glu Gln Leu Asp Glu Glu Thr Pro Lys Val Cys Gln Phe Gly Ala Leu Cys Ser Leu Gln Gly Arg Leu Gln Leu Leu Ser Ser Glu Gln Phe Ile Thr Gly Leu Ile Arg Ile Met Lys His Glu Asn Asp Asn Ala Phe Leu Ala Asn Glu Glu Lys Ala Ile Arg Leu Cys Lys Ala Leu Arg Glu Gly Leu Lys 3285 3290 Val Ser Cys Phe Glu Lys Leu Gln Thr Thr Leu Arg Val Lys Gly Phe Asn Pro Ile Pro His Ser Arg Ser Glu Thr Phe Ala Phe Leu Lys Arg Phe Gly Asn Ala Val Ile Leu Leu Tyr Ile Gln His Ser Asp Ser Lys Asp Ile Asn Phe Leu Leu Ala Leu Ala Met Thr Leu Lys Ser Ala Thr 3350 3355 Asp Asn Leu Ile Ser Asp Thr Ser Tyr Leu Ile Ala Met Leu Gly Cys Asn Asp Ile Tyr Arg Ile Gly Glu Lys Leu Asp Ser Leu Gly Val Lys Tyr Asp Ser Ser Glu Pro Ser Lys Leu Glu Leu Pro Met Pro Gly Thr Pro Ile Pro Ala Glu Ile His Tyr Thr Leu Leu Met Asp Pro Met Asn Val Phe Tyr Pro Gly Glu Tyr Val Gly Tyr Leu Val Asp Ala Glu Gly Gly Asp Ile Tyr Gly Ser Tyr Gln Pro Thr Tyr Thr Tyr Ala Ile Ile Val Gln Glu Val Glu Arg Glu Asp Ala Asp Asn Ser Ser Phe Leu Gly Lys Ile Tyr Gln Ile Asp Ile Gly Tyr Ser Glu Tyr Lys Ile Val Ser Ser Leu Asp Leu Tyr Lys Phe Ser Arg Pro Glu Glu Ser Ser Gln Ser 3490 3495 Arg Asp Ser Ala Pro Ser Thr Pro Thr Ser Pro Thr Glu Phe Leu Thr Pro Gly Leu Arg Ser Ile Pro Pro Leu Phe Ser Gly Arg Glu Ser His Lys Thr Ser Ser Lys His Gln Ser Pro Lys Lys Leu Lys Val Asn Ser Leu Pro Glu Ile Leu Lys Glu Val Thr Ser Val Val Glu Gln Ala Trp Lys Leu Pro Glu Ser Glu Arg Lys Lys Ile Ile Arg Arg Leu Tyr Leu

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Lys Trp His Pro Asp Lys Asn Pro Glu Asn His Asp Ile Ala Asn Glu 3590 3595 Val Phe Lys His Leu Gln Asn Glu Ile Asn Arg Leu Glu Lys Gln Ala 3610 3605 Phe Leu Asp Gln Asn Ala Asp Arg Ala Ser Arg Arg Thr Phe Ser Thr 3630 3620 3625 Ser Ala Ser Arg Phe Gln Ser Asp Lys Tyr Ser Phe Gln Arg Phe Tyr 3640 3635 3645 Thr Ser Trp Asn Gln Glu Ala Thr Ser His Lys Ser Glu Arg Gln Gln 3655 3660 Gln Asn Lys Glu Lys Cys Pro Pro Ser Ala Gly Gln Thr Tyr Ser Gln 3670 3675 Arg Phe Phe Val Pro Pro Thr Phe Lys Ser Val Gly Asn Pro Val Glu 3690 3685 Ala Arg Arg Trp Leu Arg Gln Ala Arg Ala Asn Phe Ser Ala Ala Arg 3705 3710 3700 Asn Asp Leu His Lys Asn Ala Asn Glu Trp Val Cys Phe Lys Cys Tyr 3715 3720 3725 Leu Ser Thr Lys Leu Ala Leu Ile Ala Ala Asp Tyr Ala Val Arg Gly 3740 3735 Lys Ser Asp Lys Asp Val Lys Pro Thr Ala Leu Ala Gln Lys Ile Glu 3745 3750 3755 Glu Tyr Ser Gln Gln Leu Glu Gly Leu Thr Asn Asp Val His Thr Leu 3775 3765 3770 Glu Ala Tyr Gly Val Asp Ser Leu Lys Thr Arg Tyr Pro Asp Leu Leu 3780 3785 3790 Pro Phe Pro Gln Ile Pro Asn Asp Arg Phe Thr Ser Glu Val Ala Met 3800 3805 Arg Val Met Glu Cys Thr Ala Cys Ile Ile Ile Lys Leu Glu Asn Phe 3820 3815 3810 Met Gln Gln Lys Val 3825

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_	Arg 1090)	_			1095	5				1100)			
110					1110) _			_	1115	5				1120
	Cys	_		1125	5				1130)				1135	5
	Gly	_	1140)				1145	5				1150)	
_	Thr	1155	5				1160)				1165	5		
•	Ala 1170	o -				1175	5			_	1180)			_
118	Glu 5	Leu	Thr	Agn	ጥህን	ጥኮሎ	The 220			77 T				Dro	Asp
				_	1190)	_	_		1195	5				1200
	Val		Asp	Asp 1205	1190 Phe	Ser	Val	Ile	Cys 1210	1195 Lys)	Gly	Phe	Tyr	Glu 1215	1200 Asp
Ile	Ala	His	Asp Gly 1220	Asp 1209 Lys	1190 Phe Gly	Ser Lys	Val Glu	Ile Leu 1225	Cys 1210 Thr	1195 Lys) Arg	Gly Val	Phe Phe	Tyr Ser 1230	Glu 1215 Asp	1200 Asp Gly
Ile Ser	Ala Met	His Trp 1235	Asp Gly 1220 Val	Asp 1205 Lys) Ser	1190 Phe Gly Met	Ser Lys Lys	Val Glu Asn 1240	Ile Leu 1225 Val	Cys 1210 Thr Arg	1195 Lys) Arg Phe	Gly Val Leu	Phe Phe Asp 1245	Tyr Ser 1230 Asp	Glu 1215 Asp) Ser	1200 Asp Gly Ile
Ile Ser Leu	Ala Met Gln 1250	His Trp 1235 Arg	Asp Gly 1220 Val Lys	Asp 1205 Lys) Ser Asp	1190 Phe Gly Met	Ser Lys Lys Gly 1255	Val Glu Asn 1240 Ser	Ile Leu 1225 Val	Cys 1210 Thr S Arg	Lys Arg Phe	Gly Val Leu Lys 1260	Phe Phe Asp 1245 Ile	Tyr Ser 1230 Asp Phe	Glu 1215 Asp) Ser Leu	1200 Asp Gly Ile
Ile Ser Leu Tyr 126	Ala Met Gln 1250 Leu	His Trp 1235 Arg Lys	Asp Gly 1220 Val Lys	Asp 1205 Lys Ser Asp	1190 Phe Gly Met Val Gly 1270	Lys Lys Gly 1255 Ser	Val Glu Asn 1240 Ser Lys	Leu 1225 Val Ala	Cys 1210 Thr Arg Ala Leu	Lys Arg Phe Phe Cys 1275	Gly Val Leu Lys 1260 Ala	Phe Phe Asp 1245 Ile Val	Ser 1230 Asp Phe	Glu 1215 Asp) Ser Leu Leu	1200 Asp Gly Ile Lys Pro 1280
Ile Ser Leu Tyr 1269 Ser	Ala Met Gln 1250 Leu 5 Ser	His Trp 1235 Arg) Lys Val	Asp Gly 1220 Val Lys Lys	Asp 1205 Lys Ser Asp Thr	1190 Phe Gly Met Val Gly 1270 Gly	Ser Lys Lys Gly 1255 Ser	Val Glu Asn 1240 Ser Lys Glu	Leu 1225 Val Ala Asn	Cys 1210 Thr Arg Ala Leu Ala 1290	1195 Lys Arg Phe Phe Cys 1275 Gly	Gly Val Leu Lys 1260 Ala Cys	Phe Phe Asp 1245 Ile Val Lys	Ser 1230 Asp Phe Glu	Glu 1215 Asp Ser Leu Leu Ile 1295	1200 Asp Gly Ile Lys Pro 1280 Leu
Ile Ser Leu Tyr 1269 Ser Leu	Ala Met Gln 1250 Leu Ser Glu	His Trp 1239 Arg Lys Val	Asp Gly 1220 Val Lys Lys Lys Thr 1300	Asp 1205 Lys Ser Asp Thr Ala 1285 Phe	1190 Phe Gly Met Val Gly 1270 Gly Ser	Lys Lys Gly 1255 Ser Phe Glu	Val Glu Asn 1240 Ser Lys Glu Lys	Leu 1225 Val Ala Asn Glu Gln 1305	Cys 1210 Thr Arg Ala Leu Ala 1290 Phe	1195 Lys Arg Phe Phe Cys 1275 Gly	Gly Val Leu Lys 1260 Ala Cys	Phe Phe Asp 1245 Ile Val Lys Glu	Ser 1230 Asp Phe Glu Gln Val 1310	Glu 1215 Asp) Ser Leu Leu Ile 1295 Phe	1200 Asp Gly Ile Lys Pro 1280 Leu Phe
Ile Ser Leu Tyr 1269 Ser Leu Pro	Ala Met Gln 1250 Leu 5 Ser Glu Asn	Trp 1235 Arg Lys Val Asn Ile 1315	Asp Gly 1220 Val Lys Lys Lys Thr 1300 Gln	Asp 1205 Lys Ser Asp Thr Ala 1285 Phe	1190 Phe Gly Met Val Gly 1270 Gly Ser	Ser Lys Lys Gly 1255 Ser Phe Glu Glu	Val Glu Asn 1240 Ser Lys Glu Lys Ala 1320	Leu 1225 Val Ala Asn Glu Gln 1305 Glu	Cys 1210 Thr Arg Ala Leu Ala 1290 Phe	1195 Lys Arg Phe Phe Cys 1275 Gly Phe Arg	Gly Val Leu Lys 1260 Ala Cys Ser Asp	Phe Phe Asp 1245 Ile Val Lys Glu Pro 1325	Ser 1230 Asp Phe Glu Gln Val 1310 Leu	Glu 1215 Asp) Ser Leu Leu Ile 1295 Phe) Met	1200 Asp Gly Ile Lys Pro 1280 Leu Phe Asn
Ile Ser Leu Tyr 126 Ser Leu Pro	Ala Met Gln 1250 Leu 5 Ser Glu Asn Val 1330	Trp 1235 Arg Lys Val Asn Ile 1315 Leu	Asp Gly 1220 Val Lys Lys Lys Thr 1300 Gln Asn	Asp 1205 Lys Ser Asp Thr Ala 1285 Phe	1190 Phe Gly Met Val Gly 1270 Gly Ser Ile	Lys Lys Gly 1255 Ser Phe Glu Glu Leu 1335	Val Glu Asn 1240 Ser Lys Glu Lys Ala 1320 Asp	Leu 1225 Val Ala Asn Glu Gln 1305 Glu Glu	Cys 1210 Thr Arg Ala Leu Ala 1290 Phe Leu Phe	1195 Lys Arg Phe Phe Cys 1275 Gly Phe Arg	Gly Val Leu Lys 1260 Ala Cys Ser Asp Gly 1340	Phe Phe Asp 1245 Ile Val Lys Glu Pro 1325 Ile	Ser 1230 Asp Phe Glu Val 1310 Leu Leu	Glu 1215 Asp Ser Leu Leu Ile 1295 Phe Met Arg	1200 Asp Gly Ile Lys Pro 1280 Leu Phe Asn Val
Ile Ser Leu Tyr 126 Ser Leu Pro	Ala Met Gln 1250 Leu S Ser Glu Asn Val 1330 Pro	Trp 1235 Arg Lys Val Asn Ile 1315 Leu	Asp Gly 1220 Val Lys Lys Lys Thr 1300 Gln Asn	Asp 1205 Lys Ser Asp Thr Ala 1285 Phe	1190 Phe Gly Met Val Gly 1270 Gly Ser Ile	Lys Lys Gly 1255 Ser Phe Glu Glu Leu 1335 Ser	Val Glu Asn 1240 Ser Lys Glu Lys Ala 1320 Asp	Leu 1225 Val Ala Asn Glu Gln 1305 Glu Glu	Cys 1210 Thr Arg Ala Leu Ala 1290 Phe Leu Phe	1195 Lys Arg Phe Phe Cys 1275 Gly Phe Arg	Gly Val Leu Lys 1260 Ala Cys Ser Asp Gly 1340 Pro	Phe Phe Asp 1245 Ile Val Lys Glu Pro 1325 Ile	Ser 1230 Asp Phe Glu Val 1310 Leu Leu	Glu 1215 Asp Ser Leu Leu Ile 1295 Phe Met Arg	1200 Asp Gly Ile Lys Pro 1280 Leu Phe Asn Val

Ser	Arg	Leu	Ile	His 1369		Glu	Gly	Arg	Val 1370		Lys	Leu	Phe	Asp 1375	
Lys	Asp	Gly	Arg 1380	Phe		Tyr	Gly	Ser 1385	Thr		Asp	Tyr	Leu 1390		Pro
Tle	Tle	Leu	Ile		Leu	Val	Gln			Met	Ala	Lvs			Ile
110		1395		_, _			1400					1405		1125	
Leu	Trp 1410	_	Asp	Met	Leu	Glu 1415	Arg		Glu	Ser	Val 1420		Glu	Ile	Asn
Lvs			His	Ala	Ala			Leu	Arq	Ser			Leu	Leu	Ser
1425		-			1430		•		_	1435					1440
Leu	Ile	Asp	Glu	Lys 1445		Lys	Ile	Lys	Asp 1450		Arg	Ala	Lys	Asp 1455	
Ala	Ala	Lys	Tyr 1460		Thr	Ile	Pro	Phe 1465		Pro	Phe	Leu	Thr 1470		Pro
Ala	Gly	Phe 1475	Ser	Leu	Glu	Trp	Lys 1480		Asn	Ser	Phe	Lys 1485		Glu	Thr
Met	Phe		Ala	Thr	Asp	Ile			Ala	Glu	Tyr			Ile	Val
	1490				•	1495					1500		•		
Cys	Leu	Leu	Gln	Pro	Ile	Leu	Asn	Glu	Asn	Ser	His	Ser	Phe	Arg	Gly
1505					1510					1515					1520
	_		Val	1525	5				1530)				1535	5
Lys	Pro	Thr	Val 1540	_	Leu	Val	Ile	Asn 1545		Leu	Lys	Gln	Val 1550		Lys
Ser	Val	Asp 1555	Asp	Gly	Ile	Thr	Leu 1560		Gln	Glu	Asn	Ile 1569		Asn	Ala
Cys	Tyr		Tyr	Leu	His	Glu	Ala	Val	Leu	Gln	Asn	Glu	Met	Ala	Lys
_	1570		_			1575					1580				
Ala	Thr	Ile	Ile	Glu	_		Lys	Pro	Phe	_		Ile	Leu	Val	
1585					1590			_		1599					1600
Asn	Val	Tyr	Val			Glu	Lys	Val			His	Leu	Asn		
λla	ת ה ה	Dro	Tyr	1605		Gln	Len	Dro	1610		ጥኒኒዮ	Laze	λen	1615	
ALA	Ala	PIO	1620		TÀT	GIII	пец	1625		цуз	TAT	цуз	1630		FIIC
Ara	Glu	Leu	Phe		Ser	Val	Glv			Gln	Ser	Phe			Glu
5		1635					1640					1645			_
Asp	Phe	Ala	Leu	Val	Leu	Glu	Ser	Ile	Asp	Gln	Glu	Arg	Gly	Lys	Lys
	1650)				1655	5				1660)			
Gln	Ile	Thr	Glu	Glu			Gln	Leu	Cys	Arg	Arg	Ile	Ile	Ser	
1665					1670		_			1679					1680
_		_	Ser	1685	5	_		-	1690)				1695	5
	_	_	Lys 1700)				1705	5				1710)	
Ala	Lys	Ser 1715	Leu	Cys	Tyr	Asn	Asp 1720		Pro	Trp	Ile	Lys 1725		Lys	Asp
Ser	Thr 1730		Lys	Tyr	Cys	His 1735		Asp	Ile	Pro	Arg 1740		Val	Ala	Val
Lys	Leu	Gly	Ala	Ile	Pro	Lys	Arg	His	Lys	Ala	Leu	Glu	Arg	Tyr	Ala
1745		_			1750					1755					1760
Ser	Asn	Ile	Cys	Phe 1765		Ala	Leu	Gly	Thr 1770		Phe	Gly	Gln	Lys 1775	
Lys	Leu	Thr	Ser 1780	_	Ile	Lys	Ser	Ile 1785	Leu		Ala	Tyr	Pro 1790		Glu
Lvs	G] 11	Met	Leu		G] 11	Leu	Leu			Ala	Asp	Asp			Ala
-15	J_ u			_10			1800					1805		-10	
		1795)				TOUL	,				TOO-	,		
Thr	Glu	1795 Ile	Cys	Phe	Val	Phe			Arq	Gln	His			Asp	Arg

Ile 1825		Asp	Asp	Lys	Trp 1830		Pro	Leu	Gln	Gly 1835		Ala	Leu	Cys	Val 1840
Tyr	Asn	Asn	Gln	Pro 1845		Thr	Glu	Asp	Asp 1850		Arg	Gly	Ile	Gln 1859	
Leu	Gly	Lys	Gly 1860		Lys	Glu	Gly	Asn 1865		Cys	Lys	Thr	Gly 1870		Tyr
Gly	Ile	Gly 1879		Asn	Ser	Val	Tyr 1880		Ile	Thr	Asp	Cys 1885		Ser	Phe
Ile	Ser 1890	-	Asn	Asp	Ile	Leu 1899	Gly	Ile	Phe	Asp	Pro 1900		Ala	Arg	Tyr
1905	5				1910)	Ser			1919	5				1920
-		_		192	5		Phe		1930)		_		1935	5
-			1940	<u></u>		_	Asn	1949	5				1950)	
_		1955	5				Val 1960)				1969	5		
	1970)				197					1980)			
1985	5				1990)	Asn			1995	5				2000
Glu	Ile	Asp	Lys	Ala 2005		Gly	Gly	Leu	Asn 2010		Leu	Tyr	Ser	Val 2019	
_	_		2020)			Arg	2025	5				203)	
		2035	5				Lys 2040)				2045	5		
	2050)				2059	-				2060)			
2065	5		_		2070) _	Asn	_		2075	5				2080
-			-	2085	5		Ser		2090)			_	2095	5
			2100)			Ala	2105	5				2110)	
-		2115	5		-	-	Phe 2120)				2129	5		
	2130)				2135					2140)		_	_
2145	5				2150)	Gly			2159	5				2160
				2169	5		Ile		2170)	•			2175	5
			2180)			Phe	2189	5				2190)	
Val	Leu	Gln 2199		Thr	Pro	Ile	His 2200		Val	Lys	Asp	Thr 2205		Lys	Lys
Phe	Leu 2210		Phe	Phe	Pro	Val 2215	Asn 5	Arg	Leu	Asp	Leu 2220		Pro	Asp	Leu
Tyr 2225	_	Leu	Val	Lys	Ala 2230		Tyr	Ser	Cys	Ile 2239		Glu	Asp	Met	Lys 2240
Arg	Leu	Leu	Pro	Val 2245		Arg	Ala	Pro	Asn 2250		Asp	Gly	Ser	Asp 2255	
His	Ser	Ala	Val 2260		Ile	Thr	Trp	Ile 2269	Asn		Ser	Thr	Ser 2270		Lys
Thr	Δra	Pro	Phe	Phe	Asp	Asn	Leu	Leu	Gln	Asp	Glu	Leu	Gln	His	Leu

Lys Asn Ala 2290		229	5		_	-	2300)			
Val Tyr Arg 2305	Leu Lys	His Leu 2310	Leu	Leu	Glu	Ile 2315		Phe	Asn	Leu	Val 2320
Tyr Asn Cys	Asp Glu 232		Asn	Leu	Tyr 2330		Cys	Leu	Val	Asp 2335	
Asp Ile Pro	Val Ser 2340	Tyr Val		Pro 2345		Asp	Val	Arg	Ser 235		Leu
Met Thr Phe		Pro Asp		Asn		His	Ile	Gly 2369		Leu	Pro
Cys Arg Leu 2370	Gln Gln	Thr Asn 237		Lys	Leu	Phe	His 2380		Leu	Lys	Leu
Leu Val Asp 2385	Tyr Cys	Phe Lys 2390	Asp	Ala	Glu	Glu 2395		Glu	Phe	Glu	Val 2400
Glu Gly Leu	Pro Leu 240		Thr	Leu	Asp 2410		Val	Leu	Gln	Ile 2415	
Asp Gly Lys			Leu	Thr 2425		Tyr	His	Glu	Leu 243		Pro
Ser Arg Lys 243	_	Phe Met	Asn 2440			Tyr	Leu	Lys 2445		Ser	Ser
Val Leu Leu 2450	Asn Cys	Lys Val 245		Lys	Val	Phe	Asp 2460		Ser	Ser	Phe
Ala Asp Leu 2465	Leu Ser	Ser Val 2470	Leu	Pro	Arg	Glu 2475	-	Lys	Thr	Lys	Asn 2480
Cys Ala Lys	Trp Lys	_	Phe	Ala	Ser 2490		Ser	Trp	Leu	Lys 2495	
Ala Trp His				Val 2505		Val	Thr	Asp	Asp 251		Glu
Glu Pro Lys 251		Phe Asp	Val 2520		Val	Asp	Ile	Leu 2529		Asp	Trp
Ala Leu Leu 2530		Thr Lys 253		Thr	Val	Ser	Thr 2540		Gln	Leu	Val
Val Pro Glu 2545	Gly Asp	Val Leu 2550	Ile	Pro	Leu	Ser 2555		Met	His	Ile	Ala 2560
Val Phe Pro	Asn Ala 256		Asp	Lys	Val 2570		His	Ala	Leu	Met 2575	
Ala Gly Cys	Ile Gln 2580	Leu Ala	Leu	Asn 2585		Ile	Cys	Ser	Lys 2590		Ser
Ala Leu Val 259		Leu Ser	Cys 2600		Thr	Ala	Asn	Ile 2609	_	Ser	Pro
Ala Ser Ile 2610	Leu Lys	Ala Val 261		Tyr	Met	Val	Gln 2620		Ser	Thr	Phe
Arg Thr Glu 2625	Lys Leu	Met Glu 2630	Asn	Asp	Phe	Glu 2635		Leu	Leu	Met	Tyr 2640
Phe Asn Cys	Asn Leu 264		Leu	Met	Ser 2650		Asp	Asp	Ile	Lys 2655	
Leu Lys Ser	Leu Pro 2660	Cys Tyr	Lys	Ser 2665		Ser	Gly	Arg	Tyr 2670		Ser
Ile Ala Lys 2675	_	Thr Cys	Tyr 2680		Leu	Thr	Lys	Ser 2689		Pro	Ser
Ala Glu Val 2690	Glu Lys	Trp Thr 269		Ser	Ser	Ser	Ser 2700		Phe	Leu	Glu
Glu Lys Val 2705	His Leu	Lys Glu 2710	Leu	Tyr	Glu	Val 2719		Gly	Cys	Val	Pro 2720
Val Asp Asp	Leu Glu 272	Val Tyr	Leu	Lys	His 2730		Leu	Pro	Lys	Ile 2735	
Asn Leu Ser	Tyr Asp 2740	Ala Lys	Leu	Glu 2745		Leu	Ile	Tyr	Leu 2750		Asn

Arg Leu Al	a Ser	Ile G	lu Glu	Pro	Ser	Glu	Ile	Lys	Glu	Gln	Leu	Phe
27			_	2760		•••			2765		3	-
Glu Lys Le 2770			2775	5			-	2780)		_	
Lys Gln Al 2785	a Lys 1		ne Tyr 790	Asp	Arg	Thr	Val 2795		Val	Phe	Glu	Val 2800
Met Leu Pr				Ile	Pro	Lys 2810	Glu		Phe	Lys	Lys 2815	Leu
Glu Gln Va		Lys P	ro Lys	Asn	Gln 2825	Ala		Phe	Met	Thr 2830	Ser	
Val Glu Ph 28		Arg As	sn Ile	Gly 2840		Lys	Tyr	Ala	Leu 2845		Gln	Gln
Gln Leu Le 2850	u Gln	Phe A	la Lys 2855		Ile	Ser	Val	Arg 2860		Asn	Thr	Glu
Asn Trp Se	r Lys		hr Leu 870	Gln	Ser	Thr	Val 2875		Ile	Leu	Leu	His 2880
His Ile Ph			rg Met	Asp	Leu			Gly	Asn	Phe		
Glu Leu Se		2885 Ile Pi	ro Phe	Leu	Cys	2890 Pro		Arg	Ala	Pro	2895 Ala	
Tyr Ile Ar	2900 ~ Dho		ro Cln	П	2905		17-3	7.00	Cl.	2910		Dro
29	15			2920)				2925	•		
Leu Ile Ly 2930			2935	5				2940)			
Asp Val Le 2945	u Gln		eu Trp 950	Thr	Ser	Cys	Pro 2955		Leu	Pro	Glu	Lys 2960
Ala Thr Pr		Ser II 2965	le Lys	Glu	Gln	Glu 2970	_	Ser	Asp	Leu	Ala 2975	
Gln Glu Gl	n Leu (2980		ln Val	Leu	Asn 2985		Leu	Asn	Val	Asn 2990		Asp
Pro Pro Le	u Asp : 95	Lys Va	al Ile	Asn 3000		Cys	Arg	Asn	Ile 3005		Asn	Ile
Thr Thr Le	u Asp	Glu G	lu Met 3019		Lys	Thr	Arg	Ala 3020		Val	Leu	Arg
Ser Ile Ty 3025	r Glu				Glu	Lys	Arg 3035		Phe	Arg	Phe	Gln 3040
Leu Arg Gl	_			Met	Val	Glu 3050	Asp		Trp	Lys	Leu 3055	
Lys Pro Gl		Val Va	al Ile	Asn	Leu 3065	Glu		Glu	Ala	Asp	Phe	
Pro Tyr Le	u Tyr :		eu Pro	Leu 3080	Glu		Gly	Thr	Phe 3085	His		Leu
Phe Lys Hi	s Leu	Gly Tì	nr Glu 3095	Asp	Ile	Ile	Ser	Thr 3100	Lys	Gln	Tyr	Val
Glu Val Le	ı Ser	7 T			_					Cln	Leu	
3105	a ber			гÀг	Ser	Ser			Lys	GIII		
Dro Nen Gl		3:	110				3115	;				3120
Pro Asn Gl	u Met i	3: Arg Tl 3125	l10 hr Val	Lys	Arg	Val 3130	3115 Val)	Ser	Gly	Leu	Phe 3135	Lys
Pro Asn Gl Ser Leu Gl	u Met i	3: Arg Tl 3125 Asp Se	l10 hr Val	Lys	Arg	Val 3130 Arg	3115 Val)	Ser	Gly	Leu	Phe 3135 Asn	Lys
	n Asn A 3140 u Ala	3: Arg Tl 3125 Asp Se	110 hr Val er Val	Lys Lys	Arg Val 3145 Ser	Val 3130 Arg	3115 Val) Ser	Ser Asp	Gly Leu	Leu Glu 3150 Leu	Phe 3135 Asn	Lys Ala
Ser Leu Gl Arg Asp Le 31 Ser Ser Il	n Asn i 3140 u Ala i	3: Arg Th 3125 Asp Se Leu Ty	110 hr Val er Val yr Leu he Asp	Lys Lys Pro 3160 Asp	Arg Val 3145 Ser	Val 3130 Arg Gln	3115 Val Ser Asp	Ser Asp Gly Tyr	Gly Leu Lys 3165 Lys	Leu Glu 3150 Leu	Phe 3135 Asn Val	Lys Ala Lys
Ser Leu Gl Arg Asp Le 31 Ser Ser Il 3170 Gln Gly As	n Asn i 3140 u Ala : 55 e Leu	3: Arg Th 3125 Asp Se Leu Ty Val Ph	110 hr Val er Val yr Leu he Asp 3175	Lys Lys Pro 3160 Asp	Arg Val 3145 Ser Ala	Val 3130 Arg Gln Pro	3115 Val Ser Asp His	Ser Asp Gly Tyr 3180 Leu	Gly Leu Lys 3165 Lys	Leu Glu 3150 Leu Ser	Phe 3135 Asn Val	Lys Ala Lys Ile Tyr
Ser Leu Gl Arg Asp Le 31 Ser Ser Il 3170	n Asn i 3140 u Ala i 55 e Leu i n Ile (3: Arg Th 3125 Asp Se Leu Ty Val Ph Gly Va 3:	110 hr Val er Val yr Leu he Asp 3175 al Gln	Lys Lys Pro 3160 Asp Met	Arg Val 3145 Ser Ala Leu	Val 3130 Arg Gln Pro	3115 Val Ser Asp His Asp 3195 Leu	Ser Asp Gly Tyr 3180 Leu	Gly Leu Lys 3165 Lys Ser	Leu Glu 3150 Leu Ser Gln	Phe 3135 Asn Val Arg Cys	Lys Ala Lys Ile Tyr 3200 Pro

Gln	Lys	Leu	Arg 3220		Arg	Leu	Leu	Ser 3225		Ile	Leu	Glu	Glu 3230		Leu
Asp	Glu	Glu 3235		Pro	Lys	Val	Cys 3240		Phe	Gly	Ala	Leu 3245		Ser	Leu
Gln	Gly 3250	Arg		Gln	Leu	Leu 3255	Leu		Ser	Glu	Gln 3260	Phe		Thr	Gly
Leu 3265	Ile		Ile	Met	Lys 3270	His		Asn	Asp	Asn 3275	Ala		Leu	Ala	Asn 3280
		Lys	Ala	Ile 3289	Arg		Cys	Lys	Ala 3290	Leu		Glu	Gly	Leu 3295	Lys
Val	Ser	Cys	Phe 3300	Glu	Lys	Leu	Gln	Thr 3309	Thr		Arg	Val	Lys 3310	Gly	
Asn	Pro	Ile 3319	Pro		Ser	Arg	Ser 3320	Glu		Phe	Ala	Phe 3325	Leu		Arg
Phe	Gly 3330	Asn		Val	Ile	Leu 3335	Leu		Ile	Gln	His 3340	Ser		Ser	Lys
_	Ile		Phe	Leu	Leu 3350	Ala		Ala	Met	Thr 3355	Leu		Ser	Ala	Thr 3360
3345 Asp		Leu	Ile	Ser 336	Asp		Ser	Tyr	Leu 3370	Ile		Met	Leu	Gly 3375	Cys
Asn	Asp	Ile	Tyr 3380	Arg	Ile	Ser	Glu	Lys 3385	Leu		Ser	Leu	Gly 3390	Val	
Tyr	Asp	Ser 3399	Ser	•	Pro	Ser	Lys 3400	Leu		Leu	Pro	Met 3405	Pro		Thr
Pro	Ile 3410	Pro		Glu	Ile	His 3415	Tyr		Leu	Leu	Met 3420	Asp		Met	Asn
Val 3425	Phe		Pro	Gly	Glu 3430	Tyr		Gly	Tyr	Leu 3435	Val		Ala	Glu	Gly 3440
		Ile	Tyr	Gly 3445	Ser		Gln	Pro	Thr 3450	Tyr		Tyr	Ala	Ile 3455	Ile
Val	Gln	Glu	Val 3460	Glu	Arg	Glu	Asp	Ala 3465	Asp		Thr	Ser	Phe 3470	Leu	
Lys	Ile	Tyr 3475	Gln		Asp	Ile	Gly 3480	Tyr		Glu	Tyr	Lys 3485	Ile		Ser
Ser	Leu 3490	Asp		Tyr	Lys	Phe 3499	Ser		Pro	Asp	Glu 3500	Ser		Gln	Asn
Arg 3505	Asp		Ala	Pro	Thr 3510	Thr		Thr	Ser	Pro 3519	Thr		Phe	Leu	Thr 3520
		Leu	Arg	Ser 3525	Ile		Pro	Leu	Phe 3530	Ser		Lys	Glu	Ser 3535	His
Lys	Ser	Pro	Ser 3540	Thr	Lys	His	His	Ser 3545	Pro		Lys	Leu	Lys 3550	Val	
Ala	Leu	Pro 3555	Glu		Leu	Lys	Glu 3560	Val		Ser	Val	Val 3565	Glu		Ala
Trp	Lys 3570	Leu		Glu	Ser	Glu 3575	Arg		Lys	Ile	Ile 3580	Arg		Leu	Tyr
Leu 3585	Lys		His	Pro	Asp 3590	Lys		Pro	Glu	Asn 3599	His		Ile	Ala	Asn 3600
		Phe	Lys	His 3609	Leu		Asn	Glu	Ile 3610	Asn		Leu	Glu	Lys 3615	Gln
Ala	Phe	Leu	Asp 3620	Gln	Asn	Ala	Asp	Arg 3625	Ala		Arg	Arg	Thr 3630	Phe	-
	_	Δla			Phe	Gln	Ser			Tyr	Ser	Phe	Gln		Phe
Thr	Ser			n. 9			3640)				364	5		
	Thr	3635 Ser	5		Gln				Ser	His	Lys 3660			Arg	Gln
Tyr	Thr 3650 Gln	3635 Ser	5 Trp	Asn	Gln	3655 Cys	Ala	Thr			3660 Gly	Ser	Glu		Gln Ser 3680

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Gln Arg Phe Phe Val Pro Pro Thr Phe Lys Ser Val Gly Asn Pro Val
                                    3690
                3685
Glu Ala Arg Arg Trp Leu Arg Gln Ala Arg Ala Asn Phe Ser Ala Ala
                                3705
                                                    3710
            3700
Arg Asn Asp Leu His Lys Asn Ala Asn Glu Trp Val Cys Phe Lys Cys
                                                3725
                            3720
        3715
Tyr Leu Ser Thr Lys Leu Ala Leu Ile Ala Ala Asp Tyr Ala Val Arg
                        3735
                                            3740
Gly Lys Ser Asp Lys Asp Val Lys Pro Thr Ala Leu Ala Gln Lys Ile
                    3750
                                        3755
Glu Glu Tyr Ser Gln Gln Leu Glu Gly Leu Thr Asn Asp Val His Thr
                3765
                                    3770
Leu Glu Ala Tyr Gly Val Asp Ser Leu Lys Thr Arg Tyr Pro Asp Leu
                                3785
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            3780
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Phe Lys Arg Ile Asn His Ser Ser Asp Gln Gly Ile Ser Ser Tyr Thr
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Cys Leu Lys Leu Val Leu Lys Asp Ile Glu Asn Ala Phe Tyr Ser His
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Pro		Gln	Phe	Lys	Pro		Ile	Asp	Val	Phe	Gly	Cys	Gln	Leu	Pro
865					870	_	_	_	_	875	1	_	-1	_	880
				885		-			890					Arg 895	
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Cys	Tyr	Asn 915	Thr	Ala	Asp	Ile	Tyr 920	Ser	Leu	Val	Asp	Glu 925	Phe	Ser	Leu
Cys	Gly 930	His	Arg	Leu	Ile	Ile 935	Phe	Thr	Gln	Ser	Val 940	Lys	Ser	Met	Tyr
Leu		Tyr	Leu	Lys	Ile		Glu	Thr	Asn	Pro	Ser	Leu	Ala	Gln	Asp
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Cys	Met		Thr				Leu	Lys		Ser	Leu		Glu	Ser	Gly
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a 1	1090		7 ~~	01 5	T	1099		1707	T	Dwo	1100		01	<i>α</i> 1,,	1707
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Lys		_		Gln	Val				Leu	Arg				Thr	Ser
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Thr Thr Val Ly 1730	s Tyr Cys Hi 17		e Pro Arg G 1740	lu Val Ala Val
1745	1750		1755	lu Arg Tyr Ala 1760
	1765	17	70	ly Gln Lys Glu 1775
17	80	1785		yr Pro Ser Glu 1790
1795	_	1800	1	sp Ala Lys Ala 805
1810	18	15	1820	Pro Val Asp Arg
Ile Phe Asp As 1825	p Lys Trp Al 1830	a Pro Leu Gl	n Gly Pro A 1835	la Leu Cys Val 1840
-	1845	18	50	ly Ile Gln Asn 1855
Leu Gly Lys Gl 18		u Gly Asn Pr 1865	o Tyr Lys T	hr Gly Gln Tyr 1870
Gly Ile Gly Ph 1875	e Asn Ser Va	l Tyr His Il 1880	-	ys Pro Ser Phe 885
Ile Ser Gly As 1890	n Asp Ile Le 18		e Asp Pro H 1900	is Ala Arg Tyr
Ala Pro Gly Al		e Ser Pro Gl	y Arg Met P	he Arg Asp Leu
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34/83

Leu Pro Phe His Val Asn Gly His Phe Ala Leu Asp Ser Ala Arg Arg
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Asn Leu Trp Arg Asp Asp Asn Gly Val Gly Val Arg Ser Asp Trp Asn
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			740					745				Ser	750		
		755					760					Leu 765			
	770					775					780	Phe Leu			
785					790					795			_		800
				805					810			Glu		815	
_		_	820					825				Gln	830		
		835	_				840			-		Gly 845			
	850					855					860	Arg			
865	vaı	HIS	гÀг	шe	870	ьeu	гуѕ	ьуs	ASN	875	Ата	Leu	Pro	гаг	880
				885					890			Arg		895	
			900					905				His	910		
Phe	Arg	Ser 915	Gln	Trp	Lys	Asn	Phe 920	Thr	Met	Cys	Ser	Glu 925	Gly	Leu	Leu

Ile Tyr S 930	er Arg	His	Phe	Leu 935	Glu	Val	Gln	Met	Met 940	Thr	Gln	Leu	Leu
Ser Leu L 945	ys Trp	Leu	Ser 950	Leu	Ala	Asn	Gln	Lys 955	Ser	His	Gln	Met	Ser 960
Cys His A	rg Lys	Gln 965	Ser	Val	Pro	Arg	Gly 970	Phe	Cys	Val	Leu	Ala 975	Trp
Thr Gln G	lu Arg 980		Ser	Phe	Pro	Val 985	Arg	Val	Glu	Glu	Asp 990	Asp	Trp
Phe His V	al Gly 95	Gln	Glu	Phe	Ser 1000		Gļn	Lys	Ser	Arg 1009		Arg	Ser
Gly Gln A	sn His	Thr		Glu 1015		Cys	Phe	Ala	Ile 1020	_	Leu	Tyr	Glu
Lys Gln A 1025	la Cys	Gln		Ile		Met	Gly	Ala 1035		Leu	Leu	His	Gln 1040
Ile Gly L	ys Lys	Ser 1045	_	Lys	Gln	Ile	Gln 1050	_	Asp	Àsp	Gly	Ile 1055	
Arg Ser A	sp Met 106		Leu	Lys	Leu	Thr 1065		Arg	Tyr	Val	Ser 1070		Gly
Thr Trp P	ro Leu 075	Val	Gly	Ser	Trp 1080		Ile	Leu	Thr	Met 1089		Tyr	Gly
Pro Ile L 1090	eu Ile	Phe	Met	Met 1099		Phe	Leu	Phe	Ala 1100	-	Asp	Phe	Met
Lys Ile L 1105	eu Met	Glu	Lys 1110		Lys	Asn	Pro	Lys 1115		Ser	Leu	Met	Asp 1120
Leu Leu G	ly Phe	Pro 1125	_	Thr	Asp	Phe	Met 1130		Leu	Tyr	Leu	Lys 1135	
Glu Met L	eu Val 114		Gln	Pro	Ser	Arg 1145	_	Phe	Asn	Thr	Ser 1150		Arg
Leu Gly P	ro Lys 155	Thr	Phe	Val	Leu 1160		Asn	Phe	Leu	Leu 1165	_	Asn	Asp
Leu Lys L 1170	ys Leu	Ala	Ala	Asn 1175		Tyr	Tyr	Leu	Lys 1180		His	Phe	Gln
Arg Asn S 1185	er Phe	Phe	Leu 1190		Cys	Phe	Phe	Gln 1199		Phe	Lys	Lys	Leu 1200
Lys Gln A		1205	;				1210)				1215	5
Ser Arg G	122	0				1225	5				1230)	_
	235		-		1240) _				1245	5		
Gln Ser T 1250				1255	5	_	_		1260)			
Arg Ile I 1265			1270)				1275	5		_		1280
Met Ile P	_	1285	5		_		1290)	_			1295	5
Ile Lys V	130	0				1305	5				1310)	
	315				1320)				1325	5		
Ile Lys G 1330				1335	5				1340)			
Trp Thr G 1345			1350)				1355	5				1360
Leu Thr P		1365	;				1370)				1375	5
Phe Met L	c Tle	Pro	Tle	Len	Len	Glu	Val	Val	Val	Gln	Cvs	Hic	Trn

Leu	Leu			Phe	Trp	Asp			Arg	Ser	Gln			Ile	Trp
Leu				Lys	Gln				Met	Met				Cys	Thr
_	1410		_	_		1415		1	_	em1	1420		_	_	_
_	_	ile	Ser	Pro			Ala	Thr	Asn	Thr		Met	ьys	Pro	_
1425					1430					1435					1440
Lys	Met	Lys	Ser	Leu	Arg	Cys	Gln	Leu	Leu	Ile	Ser	Asn	Pro	Leu	Ala
				1445					1450					1455	
Ser	Phe	Leu	Arg 1460		His	Met	Leu	Thr 1469		Lys	Arg	Phe	Leu 1470		Ile
Ile	Leu	Arg 1479		His	His	Thr	Phe 1480		Ser	Cys	Leu	Ile 1485		Ile	Lys
Ile	Ile 1490		Ala	Asn	Phe	Leu 1495		Pro	Trp	Val	Gly 1500		His	Ala	Leu
T.611			T.em	T.e.11	T.em			Δsn	T.eu	Leu			Lvs	Glu	Glu
1505		110	пси	пси	1510		115	ASII	пси	1515		цуз	цуз	Olu	1520
		T	a 1 =	T			Dho	Cox	Dho			C1.,	Cor	17-1	
GIII	ser	гуѕ	GIII			11e	Pile	ser		Ala	Asp	GIU	ser		
~ 7	_			1525		~ 7	_	_	1530		_	-1		1535	
Glu	Tyr	GIY			Leu	Glu	ьуs			Lys	Asn	Pne			гàг
			1540	-				1549		_			1550		
Ile	Met	Ala 1555		Tyr	Tyr	Cys	Gln 1560		Leu	Ile	Leu	Cys 1565		Ser	Leu
Leu		_	Tyr	Ala	Thr			Ala	Leu	Gly			Ile	Pro	Leu
	1570					1575					1580				
Asn	Ile	Val	Met	Leu	Thr	Tyr	Pro	Gly	Lys	Gln	Asn	Glu	Gln	Ser	Gln
1585	5				1590)				1595	5				1600
Ser	Asp	Thr	Lys	Pro	Lys	Asp	Met	His	Pro	Met	Ser	Val	Leu	Gln	His
	-		-	1609	-	-			161					1619	
Leu	Ala	Gln	Asn	Leu	Glv	Arq	Lvs	Lys	Asn	Pro	Ala	Glu	Leu	Arq	Ala
			1620		2		-	1625					1630		
Ser	Leu	Met			Leu	Leu	Lvs			Cys	Lvs	Ser			Lvs
	LCu	1635			200	Lou	1640		_1.0	0,70	_1 -	1645			-1-
Mot	Lan			Gln	λκα	Ara			Ser	Val	T.e.11		_	Tle	T.611
MEC			MEC	GIII	Arg	165		цув	261	val	1660		пец	116	Leu
7	1650		~1 -	T 0	T 1.			T 011	Mot	т			Dwo	шіс	Crra
_		TTE	GIN	ьeu			Tyr	ьeu	Met	Ile		GIA	PIO	HIS	
1665			•	_,	1670				_,	1679		_	~3	-	1680
гаг	GTA	Gin	His			Cys	Inr	Thr		Ser	HIS	ьeu	Gin		
			_	1685					1690		_		_	1695	
Met	Leu	Glu			Arg	Ile	Leu			Ala	Arg	Lys			Ile
			1700					1709					1710		
Leu	Ile	Lys 1719		Asp	Ser	Met	Glu 1720		Ser	Ile	Leu	Cys 1729		Ile	Ser
Gln	Thr	Ala	His	Leu	Leu	Phe	Leu	Ala	Met	Thr	Ser	Cys	Val	Phe	Leu
	1730					1735					1740				
Tle			Pro	Δen	Met			Glv	Pro	His			Val	Pro	Δsn
1745		ricc	110	ASP	1750		0111	Cry	110	1755		шси	val	110	1760
		T 011	C1.,	т1о			Cln	т	T 011	Gly		802	cor	Gla	
	_			1769	5				1770)				1775	5
Phe	Trp	Ile	Phe	Ile	Trp	Glu	Pro	Ile	Leu	Asn	Trp	Ile	Ile	Ala	Gln
			1780)				1789	5				1790)	
Cys	Ser	Asp 1799		Leu	Phe	Val	Met 1800		Lys	Trp	Gln	Lys 1809		Arg	Lys
Dhe	Δνα			Gln	Hie	G] n			Trn	Ser	Δra			Trn	Thr
FIIC	_		FIIE	GTII	птр	1815		GIU	тъ	SET	1820		FIIC	тъ	T11T
7	1810		C1-	Me-	01.			Dh.	C1~	Dha			ጥሎ~	Ψ~~	Lva
	_	ΑΙΑ	GIN	мес	_		ASN	rne	cys	Phe		тте	ınr	тгр	
1825			5 1		1830			., .	_	1835			~	_	1840
ьуs	Pne	Leu	Pne		_	тте	Arg	val		Glu	ьeu	met	cys	_	
				1845	5				1850)				1855	

Gln Arg Ala Ly 18	s Ser Gln 60	Met Glu	Thr Asp 1865	Lys Gly	Asn Asn 187	
His Leu Leu II 1875	e Val Leu	Leu Lys 188		Ser Ser	Lys Thr 1885	Tyr Gln
Phe Asn Lys Pi 1890	o Ile Leu	Trp Ile 1895	Leu Arg	Thr Leu 190		Ile Leu
Leu Arg Gly Ph 1905	191	.0		1915		1920
Leu Lys Val Se	r Tyr Gln 1925	Leu Thr	Arg Thr 1930		Leu Leu	Phe Ser 1935
His Val Val Gl	u Leu Pro 40	Ala Leu	Leu Thr 1945	Thr Ile	Lys Asn 195	
Gly Pro Ser Va 1955	l Phe Cys	Leu Phe 196		Arg Leu	Gly Cys 1965	His Phe
Met Met Ala Th 1970	r Leu His	Trp Ile 1975	Gln Pro	Glu Gly 198	_	Gly Val
Met Ile Met Gl 1985	199	0		1995		2000
Leu Leu His Me	2005		201	o		2015
	20		2025		203	0
Thr Leu Arg Se 2035		204	0		2045	
Ser Gln Ile Ty 2050		2055		206	0	_
Asn Val Phe Ty 2065	207	0		2075		2080
Cys Thr Leu G	n Leu Leu 2085	Leu Gly	Ser Ile 2090		Leu Leu	Ile Lys 2095
	00	_	2105		211	0
Lys Met Gln II 2115		212	0		2125	
Ile Gly Asn Il 2130		2135		214	0	
Met Lys Leu Le 2145	u Ile Phe 215		Val Leu	Met Gln 2155	Ile Phe	Leu Leu
						2160
Val Met Pro Le	2165	Ser Asp	2170	His Phe		Leu Thr 2175
Leu Ile Ala Il	2165 e Leu Gly 80	Ser Asp Ser Cys	2170 Leu Val 2185	His Phe O Val Cys	Ser Arg	Leu Thr 2175 Leu Ile
Leu Ile Ala II 21 Asn Phe Phe II 2195	2165 e Leu Gly 80 e Val Asn	Ser Asp Ser Cys Phe Leu 220	2170 Leu Val 2185 Ile Ile 0	His Phe Val Cys	Ser Arg 219 Lys Met 2205	Leu Thr 2175 Leu Ile 0 Gln Lys
Leu Ile Ala II Asn Phe Phe II 2195 Lys Met Arg Le 2210	2165 e Leu Gly 80 e Val Asn u Lys Leu	Ser Asp Ser Cys Phe Leu 220 Arg Asp 2215	2170 Leu Val 2185 Ile Ile O Cys Pro	His Phe Val Cys Val Leu Phe Ser	Ser Arg 219 Lys Met 2205 Ser His	Leu Thr 2175 Leu Ile O Gln Lys
Leu Ile Ala II Asn Phe Phe II 2195 Lys Met Arg Le 2210 Val Phe Cys Ly 2225	2165 e Leu Gly 80 e Val Asn u Lys Leu s Leu Leu 223	Ser Asp Ser Cys Phe Leu 220 Arg Asp 2215 Met Gln 0	2170 Leu Val 2185 Ile Ile 0 Cys Pro Asn Asp	His Phe Val Cys Val Leu Phe Ser 2220 Pro Ser 2235	Ser Arg 219 Lys Met 2205 Ser His 0 Phe Gln	Leu Thr 2175 Leu Ile 0 Gln Lys Trp Thr His Ile 2240
Leu Ile Ala Il 21 Asn Phe Phe Il 2195 Lys Met Arg Le 2210 Val Phe Cys Ly	2165 e Leu Gly 80 e Val Asn u Lys Leu s Leu Leu 223	Ser Asp Ser Cys Phe Leu 220 Arg Asp 2215 Met Gln 0	2170 Leu Val 2185 Ile Ile 0 Cys Pro Asn Asp	His Phe Val Cys Val Leu Phe Ser 2220 Pro Ser 2235 Ile His	Ser Arg 219 Lys Met 2205 Ser His 0 Phe Gln	Leu Thr 2175 Leu Ile 0 Gln Lys Trp Thr His Ile 2240
Leu Ile Ala II 21 Asn Phe Phe II 2195 Lys Met Arg Le 2210 Val Phe Cys Ly 2225 Met Asn Phe Hi Val Ile Phe Ty 22	2165 e Leu Gly 80 e Val Asn u Lys Leu 223 s Pro Ala 2245 r Thr Val	Ser Asp Ser Cys Phe Leu 220 Arg Asp 2215 Met Gln U Lys Leu	Leu Val 2185 Ile Ile 0 Cys Pro Asn Asp Cys Leu 2250 Gln Lys 2265	His Phe Val Cys Val Leu Phe Ser 2220 Pro Ser 2235 Ile His Cys Leu	Ser Arg 219 Lys Met 2205 Ser His Phe Gln Tyr Ile Thr Phe 227	Leu Thr 2175 Leu Ile 0 Gln Lys Trp Thr His Ile 2240 Asn Ile 2255 Pro Ala
Leu Ile Ala II 21 Asn Phe Phe II 2195 Lys Met Arg Le 2210 Val Phe Cys Ly 2225 Met Asn Phe Hi Val Ile Phe Ty	2165 e Leu Gly 80 e Val Asn u Lys Leu 223 s Pro Ala 2245 r Thr Val	Ser Asp Ser Cys Phe Leu 220 Arg Asp 2215 Met Gln U Lys Leu	Leu Val 2185 Ile Ile 0 Cys Pro Asn Asp Cys Leu 2250 Gln Lys 2265 Cys Leu	His Phe Val Cys Val Leu Phe Ser 2220 Pro Ser 2235 Ile His Cys Leu	Ser Arg 219 Lys Met 2205 Ser His Phe Gln Tyr Ile Thr Phe 227	Leu Thr 2175 Leu Ile 0 Gln Lys Trp Thr His Ile 2240 Asn Ile 2255 Pro Ala
Leu Ile Ala II 21 Asn Phe Phe II 2195 Lys Met Arg Le 2210 Val Phe Cys Ly 2225 Met Asn Phe Hi Val Ile Phe Ty 22 Leu Leu Ile Cy 2275 Val Ala Gln Se 2290	2165 e Leu Gly 80 e Val Asn u Lys Leu 223 s Pro Ala 2245 r Thr Val 60 s Tyr Pro	Ser Asp Ser Cys Phe Leu 220 Arg Asp 2215 Met Gln U Lys Thr Lys Leu Leu Cys 228 Thr Ile 2295	Leu Val 2185 Ile Ile 0 Cys Pro Asn Asp Cys Leu 2250 Gln Lys 2265 Cys Leu 0 Leu Gln	His Phe Val Cys Val Leu Phe Ser 2220 Pro Ser 2235 Ile His Cys Leu Glu Asn Val Ser 2300	Ser Arg 219 Lys Met 2205 Ser His O Phe Gln Tyr Ile Thr Phe 2270 Ile Arg 2285 Leu Gly	Leu Thr 2175 Leu Ile Gln Lys Trp Thr His Ile 2240 Asn Ile 2255 Pro Ala Pro Lys Leu Arg
Leu Ile Ala II 21 Asn Phe Phe II 2195 Lys Met Arg Le 2210 Val Phe Cys Ly 2225 Met Asn Phe Hi Val Ile Phe Ty 22 Leu Leu Ile Cy 2275 Val Ala Gln Se	2165 e Leu Gly 80 e Val Asn u Lys Leu 223 s Pro Ala 2245 r Thr Val 60 s Tyr Pro	Ser Asp Ser Cys Phe Leu 220 Arg Asp 2215 Met Gln Us Thr Lys Leu Leu Cys 228 Thr Ile 2295 Val Asn	Leu Val 2185 Ile Ile 0 Cys Pro Asn Asp Cys Leu 2250 Gln Lys 2265 Cys Leu 0 Leu Gln	His Phe Val Cys Val Leu Phe Ser 2220 Pro Ser 2235 Ile His Cys Leu Glu Asn Val Ser 2300	Ser Arg 219 Lys Met 2205 Ser His O Phe Gln Tyr Ile Thr Phe 2270 Ile Arg 2285 Leu Gly	Leu Thr 2175 Leu Ile Gln Lys Trp Thr His Ile 2240 Asn Ile 2255 Pro Ala Pro Lys Leu Arg

Gln Asn Gln His Leu Thr Leu Leu Leu Ile Leu Lys Thr Gly His Cys 2330 2325 Phe Gln Glu Gln Ser Leu Leu Phe Gln Pro Thr Ser Leu Trp Phe Leu 2350 2345 2340 Lys Glu Met Phe Cys Phe Leu Ser Ala Leu Cys Thr Leu Gln Phe Phe 2355 2360 2365 Gln Met Pro Arg Val Ile Lys Phe Phe Met Leu Lys Pro Ala Val Phe 2375 2380 Ser Leu Leu Thr Lys Ser Val Pro Lys Thr Val His Leu Phe Leu Cys 2390 2395 Cys His Val Thr Gln Gln Ile Arg Ala Pro Gln Ala Ser Arg Leu Tyr 2405 2410 Ile Ile Trp Ser Lys Leu Gln His Leu Glu Gln Lys Asn Lys Met Ile 2425 2420 2430 Leu Arg His Phe Cys Ile Ser Thr Ala Ile Ile Cys Pro Lys Met 2440 2445 Ile Lys Phe Ser His Phe Arg Ala Ile Asn Pro Ser Val Ala Ala Met 2455 2460 Ala Leu Glu Asn Leu Glu His Ala Thr Tyr Leu Gln Lys Val Ser Leu 2470 2475 Gln Leu Lys Trp Arg Asn Gly His Asn His His Leu His Phe Leu 2485 2490 Lys Lys Lys Tyr Thr Lys Asn Tyr Met Arg Leu Val Val Tyr Leu Met 2500 2505 2510 Ile Leu Arg Tyr Ile Asn Thr Ser Tyr Gln Lys Leu Lys Ile Ser Leu 2515 2520 2525 Met Met Gln Asn Ser Thr Ser Thr Leu Arg Ile Asp Tyr Gln Val Leu 2535 2540 Arg Asn Tyr Gln Arg Leu Arg Asn Asn Phe Leu Lys Asn Trp Lys Val 2550 2555 2560 Tyr Ser Met Met Leu Thr Val Asp Ser Lys Gln Ser Ile Ser Met Ile 2565 2570 Glu Leu Glu Phe Leu Lys Leu Cys Phe Leu Lys Asn Cys Leu Phe Leu 2585 2580 2590 Met Ile Ser Leu Arg Asn Trp Asn Asn Leu Asn Pro Lys Ile Met Leu 2595 2600 2605 His Leu His Pro Gly Trp Asn Ser Glu Ile Leu Asp Asn Thr Tyr Phe 2615 2620 Leu Ser Ser Ser Cys Tyr Ser Leu Leu Arg Lys Ser Val Gly Leu Ile 2630 2635 Gln Lys Thr Gly Pro Lys Lys His Cys Lys Ile Gln Leu Ile Ser Phe 2645 2650 2655 Cys Ile Ile Tyr Ser Lys Asn Glu Trp Ile Cys Tyr Leu Glu Ile Phe 2660 2665 2670 Lys Asn Tyr Leu Tyr His Ser Tyr Val Leu Ser Gly Pro Pro Arg Asn 2680 2685 Ser Leu Asp Phe Ile Leu Asn Ile Lys Arg Met Glu His Phe Leu Leu 2695 2700 Ser Ser Met Glu His Arg Ile Gln Asn Ser Ser Asn Val Met Tyr Ser 2710 2715 Ser Cys Tyr Gly His Pro Ala Leu Phe Phe Gln Arg Lys Leu His Pro 2725 2730 Ala Leu Lys Asn Lys Lys Val Val Thr Leu Val His Lys Asn Ser Leu 2740 2745 2750 Asn Lys Phe Ile Cys Leu Met Leu Thr Trp Ile Leu Leu Leu Ile Arg 2760 2765 Ser Ile Thr Ala Glu Thr Tyr Ala Thr Arg Arg Trp Met Lys Lys Trp 2775 2780

2785	Glu	Gln	Lys	Ser 2790		Ala	Tyr	Met	Asn 2799		Ser	Val	Gln	Lys 2800
Lys Gly	Asn	Phe	Val 2805	Phe		Cys	Glu	Gly 2810	Leu		Leu	Trp	Lys 2815	Met
Val Gly	Asn	Phe 2820	Ser		Arg	Arg	Ser 2825	Thr		Met	Asn	Leu 2830	Ile	
Asn Leu	Ile 2835	Cys		Ser	Tyr	Leu 2840	Asn		Ala	His	Phe 2845	Thr		Cys
Ser Asn 285	Thr		Leu	Lys	Ile 2855	Leu		Gln	Leu	Ser 2860	Asn		Leu	Lys
Cys Ala 2865		Tyr	Leu	Lys 2870	Ile		Arg	Ala	Asn 2875	Asn		Leu	Met	Lys 2880
Cys Val	Gln	Leu	Arg 2885		Phe	Leu	Val	Cys 2890	Ser		Val	Tyr	Arg 2899	
Ile Gln	Ser	Arg 2900	_	Val	Ile	Ser	Arg 2905		Tyr	Glu	Thr	Leu 2910		Phe
Thr Ser	Gln 291		Arg	Met	Val	Asp 2920		Ser	Gln	Ala	Ser 2925		Leu	Thr
Met Arg 293		Ile	Ile	Lys	Val 2935		Ser	Arg	Gly	Ile 2940		Val	Cys	Lys
Cys Leu 2945	Ile	Ser	Ala	Ser 2950		Thr	Gly	Lys	Thr 2955		Asp	Phe	Thr	Leu 2960
Ser Cys			2965	5			_	2970) -	-			2975	5
Lys Asn	Asn	Met 2980	_	Arg	Leu	Pro	Lys 2985		Val	Ser	Leu	Glu 2990	_	Cys
Val Leu	2995	5		_	_	3000)				3005	5		
Leu Gln 301)				Ser 3015		Lys	Met	Ile	Met 3020		Phe	Trp	Pro
Met Lys 3025				3030)				3035	5				3040
3025 Ala Leu	Lys	Ser	Phe 3045	3030 Lys	Gln	His	Glu	Leu 3050	3035 Lys)	Val	Leu	Ile	Leu 3055	3040 Phe
3025 Ala Leu Pro Thr	Lys Ala	Ser Glu 3060	Phe 3045 Val	3030 Lys Lys	Gln Leu	His Leu	Glu Leu 3065	Leu 3050 Phe	3035 Lys) Ser	Val Asp	Leu Leu	Ile Val 3070	Leu 3055 Met)	3040 Phe Gln
3025 Ala Leu Pro Thr Ser Ser	Lys Ala Cys 3079	Ser Glu 3060 Ser	Phe 3045 Val) Thr	3030 Lys Lys Lys	Gln Leu Asn	His Leu Ile 3080	Glu Leu 3065 Gln	Leu 3050 Phe Thr	3035 Lys) Ser Val	Val Asp Lys	Leu Leu Thr	Ile Val 3070 Leu	Leu 3055 Met) Ile	3040 Phe Gln Ser
3025 Ala Leu Pro Thr Ser Ser Cys His 309	Lys Ala Cys 3079 Trp	Ser Glu 3060 Ser Gln	Phe 3045 Val) Thr	3030 Lys Lys Phe	Gln Leu Asn Asn 3095	His Leu Ile 3080 Gln	Glu Leu 3065 Gln) Gln	Leu 305(Phe Thr	3035 Lys Ser Val	Val Asp Lys Ile 3100	Leu Leu Thr 3085 Phe	Ile Val 3070 Leu Leu	Leu 3055 Met) Ile Thr	3040 Phe Gln Ser Leu
3025 Ala Leu Pro Thr Ser Ser Cys His 309 His Ile 3105	Lys Ala Cys 3075 Trp Leu	Ser Glu 3060 Ser Gln Leu	Phe 3045 Val) Thr Leu Cys	Asp	Gln Leu Asn Asn 3095 Ala	His Leu Ile 3080 Gln Met	Glu Leu 3065 Gln Gln Gln	Leu 3050 Phe Thr Leu	Joseph Ser Val Thr Thr 3115	Val Asp Lys Ile 3100 Gly	Leu Thr 3085 Phe Leu	Ile Val 3070 Leu Leu Val	Leu 3055 Met) Ile Thr	3040 Phe Gln Ser Leu Asn 3120
Ala Leu Pro Thr Ser Ser Cys His 309 His Ile 3105 Leu Thr	Lys Ala Cys 3079 Trp Leu Val	Ser Glu 3060 Ser Gln Leu Glu	Phe 3045 Val Thr Leu Cys Asn 3125	Asp Met	Gln Leu Asn Asn 3095 Ala	His Leu Ile 3080 Gln Met Leu	Glu Leu 3069 Gln Gln Ile Arg	Leu 3050 Phe Thr Leu Phe Ser 3130	3035 Lys Ser Val Thr Thr 3115 His	Val Asp Lys Ile 3100 Gly Gln	Leu Thr 3085 Phe Leu Asn	Val 3070 Leu Leu Val	Leu 3055 Met) Ile Thr Arg Asn 3135	3040 Phe Gln Ser Leu Asn 3120 Phe
Ala Leu Pro Thr Ser Ser Cys His 309 His Ile 3105 Leu Thr Gln Cys	Lys Ala Cys 3079 Trp Leu Val Leu	Ser Glu 3060 Ser Gln Leu Glu Ala 3140	Phe 3045 Val Val Thr Leu Cys	3030 Lys Lys Phe Leu Asp 3110 Met	Gln Leu Asn Asn 3095 Ala Thr	His Leu Ile 3080 Gln Met Leu Leu	Glu Leu 3065 Gln Gln Ile Arg Leu 3145	Leu 3050 Phe Thr Leu Phe Ser 3130 Lys	3035 Lys Ser Val Thr Thr 3115 His	Val Asp Lys Ile 3100 Gly Gln Ile	Leu Thr 3085 Phe Leu Asn	Val 3070 Leu Leu Val Trp Leu 3150	Leu 3055 Met) Ile Thr Arg Asn 3135 Cys	3040 Phe Gln Ser Leu Asn 3120 Phe Leu
Ala Leu Pro Thr Ser Ser Cys His 309 His Ile 3105 Leu Thr Gln Cys Trp Thr	Lys Ala Cys 3075 Trp Leu Val Leu Gln 3155	Ser Glu 3060 Ser Gln Leu Glu Ala 3140 Met	Phe 3045 Val) Thr Leu Cys Asn 3125 His)	Joseph Street Leu Asp Joseph Gln Phe	Gln Leu Asn Asn 3095 Ala Thr Phe	His Leu Ile 3080 Gln Met Leu Leu Arg 3160	Glu Leu 3065 Gln Gln Ile Arg Leu 3145 Glu	Leu 3050 Phe Thr Leu Phe Ser 3130 Lys Asn	3035 Lys Ser Val Thr Thr 3115 His Phe	Val Asp Lys Ile 3100 Gly Gln Ile Leu	Leu Thr 3085 Phe Leu Asn Thr Gly 3165	Val 3070 Leu Leu Val Trp Leu 3150 Thr	Leu 3055 Met) Ile Thr Arg Asn 3135 Cys) Leu	3040 Phe Gln Ser Leu Asn 3120 Phe Leu
Ala Leu Pro Thr Ser Ser Cys His 309 His Ile 3105 Leu Thr Gln Cys Trp Thr Met Leu 317	Lys Ala Cys 3075 Trp Leu Val Leu Gln 3155 Lys	Glu 3060 Ser Gln Leu Glu Ala 3140 Met Val	Phe 3045 Val) Thr Leu Cys Asn 3125 His) Phe	Josephson 10 and	Description of the control of the co	His Leu Ile 3080 Gln Met Leu Leu Arg 3160 Met	Glu Leu 3065 Gln Gln Ile Arg Leu 3145 Glu Asp	Leu 3050 Phe Thr Leu Phe Ser 3130 Lys Asn	3035 Lys Ser Val Thr Thr 3115 His Phe Met	Val Asp Lys Ile 3100 Gly Gln Ile Leu Ser 3180	Leu Thr 3085 Phe Leu Asn Thr Gly 3165 Gln	Val 3070 Leu Val Trp Leu 3150 Thr His	Leu 3055 Met Ile Thr Arg Asn 3135 Cys Leu Thr	3040 Phe Gln Ser Leu Asn 3120 Phe Leu Leu
3025 Ala Leu Pro Thr Ser Ser Cys His 309 His Ile 3105 Leu Thr Gln Cys Trp Thr Met Leu 317 Met Gln 3185	Lys Ala Cys 3075 Trp Leu Val Leu Gln 3155 Lys Leu	Glu 3060 Ser Gln Leu Glu Ala 3140 Met Val	Phe 3045 Val Thr Leu Cys Asn 3125 His Phe Val	Asp Self of the state of the st	Asn Asn 3095 Ala Thr Phe Thr Ser 3175 Lys	His Leu Ile 3080 Gln Met Leu Arg 3160 Met	Glu Leu 3069 Gln Gln Ile Arg Leu 3149 Glu Asp	Leu 3050 Phe Thr Leu Phe Ser 3130 Lys Asn His	3035 Lys Ser Val Thr Thr 3115 His Phe Met Thr Lys 3195	Val Asp Lys Ile 3100 Gly Gln Ile Leu Ser 3180 Met	Leu Thr 3085 Phe Leu Asn Thr Gly 3165 Gln Leu	Val 3070 Leu Val Trp Leu 3150 Thr His	Leu 3055 Met Ile Thr Arg Asn 3135 Cys Leu Thr	3040 Phe Gln Ser Leu Asn 3120 Phe Leu Leu His
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Ala Leu Pro Thr Ser Ser Cys His 309 His Ile 3105 Leu Thr Gln Cys Trp Thr Met Leu 317 Met Gln 3185 Val Phe Ala Leu	Lys Ala Cys 3075 Trp Leu Val Leu Gln 3155 Lys Leu Glu Leu	Glu 3060 Ser Gln Leu Glu Ala 3140 Met Val Leu Arg Ile 3220	Phe 3045 Val Thr Leu Cys Asn 3125 His Phe Val Tyr Tyr 3205 Cys	Asp Self and the self and the s	Description of the control of the co	His Leu Ile 3080 Gln Met Leu Arg 3160 Met Leu Ile Phe	Glu Leu 3065 Gln Gln Ile Arg Leu 3145 Glu Asp Lys Leu Gln 3225	Leu 3050 Phe Thr Leu Phe Ser 3130 Lys Asn His Glu Val 3210 Asp	3035 Lys Ser Val Thr Thr 3115 His Phe Met Thr Lys 3195 Ile Leu	Val Asp Lys Ile 3100 Gly Gln Ile Leu Ser 3180 Met Val Arg	Leu Thr 3085 Phe Leu Asn Gly Gln Leu Asn Leu Asn	Val 3070 Leu Val Trp Leu 3150 Thr His Thr Ile	Leu 3055 Met Ile Thr Arg Asn 3135 Cys Leu Thr Ile Lys 3215 Leu	3040 Phe Gln Ser Leu Asn 3120 Phe Leu His Leu Leu Leu Leu Leu Leu Leu Leu
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545		_		_	550					555					Thr 560
		_		565			Phe		570					575	
			580				Met	585					590		
	_	595	_				600			_		605			Leu
	610					615	Leu				620				
Pro 625	Asn	Thr	Pro	Val	Pro 630	Ile	His	His	Ser	Lys 635	Asn	Pro	Ser	Lys	Leu 640

Ile Met Lys Pro Ile His Glu Cys Cys Tyr Cys Asp Ile Lys Val Asp Asp Leu Asn Asp Leu Leu Glu Asp Ser Val Glu Pro Ile Ile Leu Val His Glu Asp Ile Pro Met Lys Thr Ala Glu Trp Leu Lys Val Pro Cys Leu Ser Thr Arg Leu Ile Asn Pro Glu Asn Met Gly Phe Glu Gln Ser Gly Gln Arg Glu Pro Leu Thr Val Arg Ile Lys Asn Ile Leu Glu Glu Tyr Pro Ser Val Ser Asp Ile Phe Lys Glu Leu Leu Gln Asn Ala Asp Asp Ala Asn Ala Thr Glu Cys Ser Phe Leu Ile Asp Met Arg Arg Asn Met Asp Ile Arq Glu Asn Leu Leu Asp Pro Gly Met Ala Ala Cys His Gly Pro Ala Leu Trp Ser Phe Asn Asn Ser Gln Phe Ser Asp Ser Asp Phe Val Asn Ile Thr Arg Leu Gly Glu Ser Leu Lys Arg Gly Glu Val Asp Lys Val Gly Lys Phe Gly Leu Gly Phe Asn Ser Val Tyr His Ile Thr Asp Ile Pro Ile Ile Met Ser Arg Glu Phe Met Ile Met Phe Asp Pro Asn Ile Asn His Ile Ser Lys His Ile Lys Asp Lys Ser Asn Pro Gly Ile Lys Ile Asn Trp Ser Lys Gln Gln Lys Arg Leu Arg Lys Phe Pro Asn Gln Phe Lys Pro Phe Ile Asp Val Phe Gly Cys Gln Leu Pro Leu Thr Val Glu Ala Pro Tyr Ser Tyr Asn Gly Thr Leu Phe Arg Leu Ser Phe Arg Thr Gln Gln Glu Ala Lys Val Ser Glu Val Ser Ser Thr Cys Tyr Asn Thr Ala Asp Ile Tyr Ser Leu Val Asp Glu Phe Ser Leu Cys Gly His Arg Leu Ile Ile Phe Thr Gln Ser Val Lys Ser Met Tyr Leu Lys Tyr Leu Lys Ile Glu Glu Thr Asn Pro Ser Leu Ala Gln Asp Thr Val Ile Ile Lys Lys Ser Cys Ser Ser Lys Ala Leu Asn Thr Pro Val Leu Ser Val Leu Lys Glu Ala Ala Lys Leu Met Lys Thr Cys Ser Ser Ser Asn Lys Leu Pro Ser Asp Glu Pro Lys Ser Ser Cys Ile Leu Gln Ile Thr Val Glu Glu Phe His His Val Phe Arg Arg Ile Ala Asp Leu Gln Ser Pro Leu Phe Arg Gly Pro Asp Asp Pro Ala Ala Leu Phe Glu Met Ala Lys Ser Gly Gln Ser Lys Lys Pro Ser Asp Glu Leu Ser Gln Lys Thr Val Glu Cys Thr Thr Trp Leu Leu Cys Thr Cys Met Asp Thr Gly Glu Ala Leu Lys Phe Ser Leu Ser Glu Ser Gly Arg Arg Leu Gly Leu Val Pro Cys Gly Ala Val Gly Val Gln Leu Ser

	T1.	<u>ما</u> ء	Asp	015	Tvea	Tres	Thr	17-1	Tara	Dro	uic	Tlo	Clar	Clu	val.
1105	5				1110)				1115	5				1120
Phe	Cys	Tyr	Leu	Pro 1125		Arg	Ile	Lys	Thr 1130		Leu	Pro	Val	His 1135	
Asn	Gly	Cys	Phe 1140		Val	Thr	Ser	Asn 1145		Lys	Glu	Ile	Trp 1150		Thr
Asp	Thr	Lys 1159	Gly		Trp	Asn	Thr 1160	Thr		Met	Arg	His 1165	Val		Val
Lys	Ala 1170	-	Leu	Gln	Val	Leu 1175		Val	Leu	Arg	Asp 1180		Ala	Thr	Ser
Gly 1189		Leu	Met	Asp	Tyr 1190		Tyr	Tyr	Ala	Val 1199		Pro	Asp	Pro	Asp 1200
		His	Asp	Asp 1209		Ser	Val	Ile	Cys 1210	Gln		Phe	Tyr	Glu 1215	
Ile	Ala	His	Gly 1220	Lys		Lys	Glu	Leu 1225	Thr		Val	Phe	Ser 1230	Asp	
Ser	Thr	Trp 1239	Val		Met	Lys	Asn 1240	Val		Phe	Leu	Asp 1245	Asp		Ile
Leu	Lys 1250	Arg	Arg	Asp	Val	Gly 1255	Ser		Ala	Phe	Lys 1260	Ile		Leu	Lys
Tyr 1269		Lys	Lys	Thr	Gly 1270		Lys	Asn	Leu	Cys 1275		Val	Glu	Leu	Pro 1280
		Val	Lys	Leu 1289	Gly	-	Glu	Glu	Ala 1290	Gly		Lys	Gln	Ile 1295	
Leu	Glu	Asn	Thr 1300	Phe	-	Glu	Lys	Gln 1305	Phe		Ser	Glu	Val 1310	Phe	
Pro	Asn	Ile 131	Gln		Ile	Glu	Ala 1320	Glu		Arg	Asp	Pro 1325	Leu		Ile
Phe	Val 1330	Leu	Asn	Glu	Lys	Val 1335	Asp		Phe	Ser	Gly 1340	Val	-	Arg	Val
	Pro		Ile	Pro		Ser		Glu	Gly		Pro		Val	Leu	
1345	Pro	Cys			1350	Ser	Leu			1355	Pro	Leu			1360
1345 Ser	Pro Arg	Cys Leu	Ile	His 1365	1350 Pro	Ser) Glu	Leu Gly	Arg	Val 1370	1355 Ala O	Pro Lys	Leu Leu	Phe	Asp 1375	1360 Ile
1345 Ser Lys	Pro Arg Asp	Cys Leu Gly	Ile Arg 1380	His 1365 Phe	1350 Pro Pro	Ser) Glu Tyr	Leu Gly Gly	Arg Ser 1389	Val 1370 Thr	1355 Ala O Gln	Pro Lys Asp	Leu Leu Tyr	Phe Leu 1390	Asp 1375 Asn	1360 Ile Fro
1345 Ser Lys	Pro Arg Asp	Cys Leu Gly	Ile Arg 1380 Ile	His 1365 Phe	1350 Pro Pro	Ser) Glu Tyr	Leu Gly Gly	Arg Ser 1389 Leu	Val 1370 Thr	1355 Ala O Gln	Pro Lys Asp	Leu Leu Tyr	Phe Leu 1390 Asp	Asp 1375 Asn	1360 Ile Fro
1345 Ser Lys Ile	Pro Arg Asp Ile	Cys Leu Gly Leu 1399 Asp	Ile Arg 1380 Ile	His 1365 Phe) Lys	1350 Pro Pro Leu	Ser Glu Tyr Val	Leu Gly Gly Gln 1400 Arg	Arg Ser 1389 Leu	Val 1370 Thr Gly	1355 Ala O Gln Met	Pro Lys Asp Ala Val	Leu Leu Tyr Lys 1405 Ala	Phe Leu 1390 Asp	Asp 1375 Asn) Asp	1360 Ile Pro
1345 Ser Lys Ile Leu Lys	Pro Arg Asp Ile Trp 1410 Ser	Cys Leu Gly Leu 1399 Asp	Ile Arg 1380 Ile	His 1365 Phe) Lys Met	Pro Pro Leu Leu Ala	Ser Olu Tyr Val Glu 1415 Ala	Gly Gly Gln 1400 Arg	Arg Ser 1385 Leu) Ala	Val 1370 Thr Gly Val	Ala O Gln Met Ser	Pro Lys Asp Ala Val 1420 Ser	Leu Tyr Lys 1405 Ala	Phe Leu 1390 Asp Glu	Asp 1375 Asn) Asp Ile	1360 Ile Pro Ile Asn Ser
1345 Ser Lys Ile Leu Lys 1425	Arg Asp Ile Trp 1410 Ser	Cys Leu Gly Leu 1399 Asp	Arg 1380 Ile Asp	His 1365 Phe Lys Met Val	Pro Pro Leu Leu Ala 1430	Ser) Glu Tyr Val Glu 1415 Ala	Gly Gly Gln 1400 Arg Cys	Arg Ser 1389 Leu) Ala Leu	Val 1370 Thr Gly Val	Ala) Gln Met Ser Ser 1435	Pro Lys Asp Ala Val 1420 Ser	Leu Tyr Lys 1405 Ala	Phe Leu 1390 Asp Glu Leu	Asp 1375 Asn Asp Ile Leu	1360 Ile Pro Ile Asn Ser 1440
1345 Ser Lys Ile Leu Lys 1425 Leu	Arg Asp Ile Trp 1410 Ser Ile	Cys Leu Gly Leu 1399 Asp Asp	Arg 1380 Ile Asp His	His 1365 Phe Lys Met Val Lys 1445	Pro Leu Leu Ala 1430 Leu	Ser) Glu Tyr Val Glu 1415 Ala) Lys	Gly Gln 1400 Arg Cys Ile	Ser 1389 Leu Ala Leu Arg	Val 1370 Thr Gly Val Arg Asp 1450	1355 Ala OGln Met Ser Ser 1435 Pro	Pro Lys Asp Ala Val 1420 Ser Arg	Leu Tyr Lys 1405 Ala Ile Ala	Phe Leu 1390 Asp Glu Leu Lys	Asp 1375 Asn Asp Ile Leu Asp 1455	1360 Ile Pro Ile Asn Ser 1440 Phe
1345 Ser Lys Ile Leu Lys 1425 Leu Ala	Arg Asp Ile Trp 1410 Ser Ile Ala	Cys Leu Gly Leu 1399 Asp Asp Asp Lys	Ile Arg 1380 Ile Asp His Glu Tyr 1460	His 1365 Phe Lys Met Val Lys 1445 Gln	1350 Pro Pro Leu Leu Ala 1430 Leu Thr	Ser Clu Tyr Val Glu 1415 Ala Lys Ile	Gly Gln 1400 Arg Cys Ile Arg	Ser 1385 Leu Ala Leu Arg	Val 1370 Thr Gly Val Arg Asp 1450 Leu	1355 Ala Gln Met Ser 1435 Pro	Pro Lys Asp Ala Val 1420 Ser Arg	Leu Tyr Lys 1405 Ala Ile Ala Leu	Phe Leu 1390 Asp Glu Leu Lys Thr 1470	Asp 1375 Asn Asp Ile Leu Asp 1455 Lys	1360 Ile Pro Ile Asn Ser 1440 Phe
1345 Ser Lys Ile Leu Lys 1425 Leu Ala	Arg Asp Ile Trp 1410 Ser Ile Ala	Cys Leu Gly Leu 1399 Asp Asp Asp Lys	Arg 1380 Ile S Asp His Glu Tyr 1460 Ser	His 1365 Phe Lys Met Val Lys 1445 Gln	1350 Pro Pro Leu Leu Ala 1430 Leu Thr	Ser Clu Tyr Val Glu 1415 Ala Lys Ile	Gly Gln 1400 Arg Cys Ile Arg	Ser 1385 Leu Ala Leu Arg Phe 1465 Gly	Val 1370 Thr Gly Val Arg Asp 1450 Leu	1355 Ala Gln Met Ser 1435 Pro	Pro Lys Asp Ala Val 1420 Ser Arg	Leu Tyr Lys 1405 Ala Ile Ala Leu	Phe Leu 1390 Asp Glu Leu Lys Thr 1470 Pro	Asp 1375 Asn Asp Ile Leu Asp 1455 Lys	1360 Ile Pro Ile Asn Ser 1440 Phe
1345 Ser Lys Ile Leu Lys 1425 Leu Ala	Arg Asp Ile Trp 1410 Ser Ile Ala Gly Phe	Cys Leu Gly Leu 1399 Asp Asp Lys Phe 1479 Ala	Arg 1380 Ile S Asp His Glu Tyr 1460 Ser	His 1365 Phe Lys Met Val Lys 1445 Gln	1350 Pro Pro Leu Leu Ala 1430 Leu Thr	Ser Glu Tyr Val Glu 1415 Ala Lys Ile Trp Leu	Gly Gly Gln 1400 Arg Cys Ile Arg Lys 1480 Tyr	Arg Ser 1385 Leu Ala Leu Arg Phe 1465 Gly	Val 1370 Thr Gly Val Arg Asp 1450 Leu	1355 Ala Color Gln Met Ser Ser 1435 Pro Pro Ser	Pro Lys Asp Ala Val 1420 Ser Arg Phe Phe	Leu Tyr Lys 1405 Ala Ile Ala Leu Lys 1485 Gln	Phe Leu 1390 Asp Glu Leu Lys Thr 1470 Pro	Asp 1375 Asn) Asp Ile Leu Asp 1455 Lys)	1360 Ile Pro Ile Asn Ser 1440 Phe Pro
1345 Ser Lys Ile Leu Lys 1425 Leu Ala Ala Met	Arg Asp Ile Trp 1410 Ser Ile Ala Gly Phe 1490 Leu	Cys Leu Gly Leu 1399 Asp Asp Lys Phe 1479 Ala	Arg 1380 Ile Asp His Glu Tyr 1460 Ser	His 1365 Phe Lys Met Val Lys 1445 Gln Leu	1350 Pro Pro Leu Leu Ala 1430 Leu Thr Asp	Ser Glu Tyr Val Glu 1415 Ala Lys Ile Trp Leu 1495 Leu	Gly Gln 1400 Arg Cys Ile Arg Lys 1480 Tyr	Ser 1385 Leu Ala Leu Arg Phe 1465 Gly	Val 1370 Thr Gly Val Arg Asp 1450 Leu Asn	Ala Gln Met Ser 1435 Pro Pro Ser Glu Ser	Pro Lys Asp Ala Val 1420 Ser Arg Phe His 1500 His	Leu Tyr Lys 1405 Ala Ile Ala Leu Lys 1485 Gln	Phe Leu 1390 Asp Glu Leu Lys Thr 1470 Pro Asp	Asp 1375 Asn) Asp Ile Leu Asp 1455 Lys) Glu	1360 Ile Pro Ile Asn Ser 1440 Phe Pro Thr Val
1345 Ser Lys Ile Leu Lys 1425 Leu Ala Ala Met Cys 1505	Pro Arg Asp Ile Trp 1410 Ser Ile Ala Gly Phe 1490 Leu	Cys Leu Gly Leu 1399 Asp Asp Lys Phe 1479 Ala Leu	Arg 1380 Ile Asp His Glu Tyr 1460 Ser	His 1365 Phe Lys Met Val Lys 1445 Gln Leu Thr	1350 Pro Pro Leu Leu Ala 1430 Leu Thr Asp Asp	Ser Clu Tyr Val Glu 1415 Ala Lys Ile Trp Leu 1495 Leu Clu Clu Clu Clu Clu Clu Clu Clu Clu Cl	Gly Gly Gln 1400 Arg Cys Ile Arg Lys 1480 Tyr Asn	Ser 1385 Leu Ala Leu Arg Phe 1465 Gly Thr	Val 1370 Thr Gly Val Arg Asp 1450 Leu Asn Ala Asn	Ala Gln Met Ser 1435 Pro Pro Ser Glu Ser 1515 Phe	Pro Lys Asp Ala Val 1420 Ser Arg Phe His 1500 His	Leu Tyr Lys 1405 Ala Ile Ala Leu Lys 1485 Gln Ser	Phe Leu 1390 Asp Glu Leu Lys Thr 1470 Pro Asp	Asp 1375 Asn) Asp Ile Leu Asp 1455 Lys) Glu Ile Arg Leu	1360 Ile Pro Ile Asn Ser 1440 Phe Thr Val Gly 1520 Lys
Lys Leu Lys 1425 Leu Ala Ala Met Cys 1505 Cys	Arg Asp Ile Trp 1410 Ser Ile Ala Gly Phe 1490 Leu Gly	Cys Leu Gly Leu 1399 Asp Asp Lys Phe 1479 Ala Leu Ser	Arg 1380 Ile Asp His Glu Tyr 1460 Ser Ala Gln Val	His 1365 Phe Lys Met Val Lys 1445 Gln Leu Thr Pro Ser 1525 Asp	1350 Pro Pro Leu Leu Ala 1430 Leu Thr Asp Asp	Ser Glu Tyr Val Glu 1415 Ala Lys Ile Trp Leu 1495 Leu Ala	Gly Gly Gln 1400 Arg Cys Ile Arg Lys 1480 Tyr Asn Val	Ser 1389 Leu Ala Leu Arg Phe 1469 Gly Thr Glu Lys	Val 1370 Thr Gly Val Arg Asp 1450 Leu Asn Ala Asn Glu 1530 Gln	Ala Gln Met Ser 1435 Pro Pro Ser Glu Ser 1515 Phe	Pro Lys Asp Ala Val 1420 Ser Arg Phe His 1500 His Leu	Leu Tyr Lys 1405 Ala Ile Ala Leu Lys 1485 Gln Ser Gly	Phe Leu 1390 Asp Glu Leu Lys Thr 1470 Pro Asp Phe Leu Val	Asp 1375 Asn Asp Ile Leu Asp 1455 Lys Glu Ile Arg Leu 1535 Ala	1360 Ile Pro Ile Asn Ser 1440 Phe Pro Thr Val Gly 1520 Lys
Lys Leu Lys 1425 Leu Ala Ala Met Cys 1505 Cys Lys	Arg Asp Ile Trp 1410 Ser Ile Ala Gly Phe 1490 Leu Gly Pro	Cys Leu Gly Leu 1399 Asp Asp Lys Phe 1479 Ala Leu Ser	Arg 1380 Ile Asp His Glu Tyr 1460 Ser Ala Gln Val	His 1365 Phe Lys Met Val Lys 1445 Gln Leu Thr Pro Ser 1525 Asp	1350 Pro Pro Leu Leu Ala 1430 Leu Thr Asp Ile 1510 Leu Leu	Glu Tyr Val Glu 1415 Ala Lys Ile Trp Leu 1495 Leu Ala Val	Gly Gly Gln 1400 Arg Cys Ile Arg Lys 1480 Tyr Asn Val	Ser 1389 Leu Ala Leu Arg Phe 1469 Gly Thr Glu Lys Asn 1549	Val 1370 Thr Gly Val Arg Asp 1450 Leu Asn Ala Asn Glu 1530 Gln	Ala Gln Met Ser 1435 Pro Pro Ser Glu Ser 1515 Phe Leu	Pro Lys Asp Ala Val 1420 Ser Arg Phe Phe His 1500 His Leu Lys	Leu Tyr Lys 1405 Ala Ile Ala Leu Lys 1485 Gln Ser Gly Glu	Phe Leu 1390 Asp Glu Leu Lys Thr 1470 Pro Asp Phe Leu Val 1550	Asp 1375 Asn Asp Ile Leu Asp 1455 Lys Glu Ile Arg Leu 1535 Ala	1360 Ile Pro Ile Asn Ser 1440 Phe Thr Val Gly 1520 Lys Lys

Cys Tyr Lys Tyr Leu His Glu Ala Leu Met Gln Asn Glu Ile Thr Lys 1580 1575 Met Ser Ile Ile Asp Lys Leu Lys Pro Phe Ser Phe Ile Leu Val Glu 1595 1590 Asn Ala Tyr Val Asp Ser Glu Lys Val Ser Phe His Leu Asn Phe Glu 1610 1615 1605 Ala Ala Pro Tyr Leu Tyr Gln Leu Pro Asn Lys Tyr Lys Asn Asn Phe 1620 1625 1630 Arg Glu Leu Phe Glu Thr Val Gly Val Arg Gln Ser Cys Thr Val Glu 1640 1645 Asp Phe Ala Leu Val Leu Glu Ser Ile Asp Gln Glu Arg Gly Thr Lys 1655 1660 Gln Ile Thr Glu Glu Asn Phe Gln Leu Cys Arg Arg Ile Ile Ser Glu 1670 1675 Gly Ile Trp Ser Leu Ile Arg Glu Lys Lys Gln Glu Phe Cys Glu Lys 1685 1690 Asn Tyr Gly Lys Ile Leu Leu Pro Asp Thr Asn Leu Met Leu Leu Pro 1700 1705 Ala Lys Ser Leu Cys Tyr Asn Asp Cys Pro Trp Ile Lys Val Lys Asp 1715 1720 1725 Thr Thr Val Lys Tyr Cys His Ala Asp Ile Pro Arg Glu Val Ala Val 1730 1735 1740 Lys Leu Gly Ala Val Pro Lys Arg His Lys Ala Leu Glu Arg Tyr Ala 1750 1755 Ser Asn Val Cys Phe Thr Thr Leu Gly Thr Glu Phe Gly Gln Lys Glu 1765 1770 Lys Leu Thr Ser Arg Ile Lys Ser Ile Leu Asn Ala Tyr Pro Ser Glu 1780 1785 Lys Glu Met Leu Lys Glu Leu Leu Gln Asn Ala Asp Asp Ala Lys Ala 1800 Thr Glu Ile Cys Phe Val Phe Asp Pro Arg Gln His Pro Val Asp Arg 1815 Ile Phe Asp Asp Lys Trp Ala Pro Leu Gln Gly Pro Ala Leu Cys Val 1830 1835 Tyr Asn Asn Gln Pro Phe Thr Glu Asp Asp Val Arg Gly Ile Gln Asn 1845 1850 Leu Gly Lys Gly Thr Lys Glu Gly Asn Pro Tyr Lys Thr Gly Gln Tyr 1865 Gly Ile Gly Phe Asn Ser Val Tyr His Ile Thr Asp Cys Pro Ser Phe 1880 1885 Ile Ser Gly Asn Asp Ile Leu Cys Ile Phe Asp Pro His Ala Arg Tyr 1890 1895 1900 Ala Pro Gly Ala Thr Ser Ile Ser Pro Gly Arg Met Phe Arg Asp Leu 1910 1915 Asp Ala Asp Phe Arg Thr Gln Phe Ser Asp Val Leu Asp Leu Tyr Leu 1925 1930 Gly Thr His Phe Lys Leu Asp Asn Cys Thr Met Phe Arg Phe Pro Leu 1945 Arg Asn Ala Glu Met Ala Lys Val Ser Glu Ile Ser Ser Val Pro Ala 1960 1965 Ser Asp Arg Met Val Gln Asn Leu Leu Asp Lys Leu Arg Ser Asp Gly 1975 1980 Ala Glu Leu Leu Met Phe Leu Asn His Met Glu Lys Ile Ser Ile Cys 1990 1995 Glu Ile Asp Lys Ser Thr Gly Ala Leu Asn Val Leu Tyr Ser Val Lys 2005 2010 Gly Lys Ile Thr Asp Gly Asp Arg Leu Lys Arg Lys Gln Phe His Ala 2025

2035		2040)		2045	Ile Pro
Val Gln Gln Ile 2050		2055		206	0	_
Leu Thr Thr Trp 2065	Leu Ile 2070		Arg Ser	Gly Phe 2075	Ser Ser	Met Glu 2080
Lys Val Ser Lys	2085		209	0 _		2095
Leu Phe Pro Arc	0		2105		211	0
Lys Pro His Arg 2115		2120	ס		2125	
Leu Pro Phe His 2130		2135		214	0	
Asn Leu Trp Arg 2145	2150	_	_	2155		2160
Asn Ser Leu Met	2165		217	0		2175
Ile Gln Leu Lys	30	_	2185	_	219	0
Val Leu Gln Ası 2195		2200	ס		2205	
Phe Leu Ser Phe 2210		2215	-	222	0	_
Tyr Cys Leu Val 2225	2230	_	_	2235		2240
Arg Leu Leu Pro	2245	_	225	0		2255
His Ser Ala Val		ini iip	2265	Mer Ser	227	
The Are Dro Dhe	Dho Aan	Aan Lou	Ton Cla	Nan Clu	Ton Cln	Hig Ton
Thr Arg Pro Phe 2275		2280)		2285	
2275 Lys Asn Ala Asp 2290	Tyr Asn	2280 Ile Thr 2295) Thr Arg	Lys Thr	2285 Val Ala O	Glu Asn
2275 Lys Asn Ala Asp 2290 Val Tyr Arg Let 2305	Tyr Asn Lys His	2280 Ile Thr 2295 Leu Leu) Thr Arg Leu Glu	Lys Thr 2300 Ile Gly 2315	2285 Val Ala O Phe Asn	Glu Asn Leu Val 2320
2275 Lys Asn Ala Asp 2290 Val Tyr Arg Let 2305 Tyr Asn Cys Asp	Tyr Asn Lys His 2310 Glu Thr 2325	2280 Ile Thr 2295 Leu Leu Ala Asn	Thr Arg Leu Glu Leu Tyr 233	Lys Thr 2300 Ile Gly 2315 His Cys	2285 Val Ala O Phe Asn Leu Ile	Glu Asn Leu Val 2320 Asp Ala 2335
Lys Asn Ala Asp 2290 Val Tyr Arg Let 2305 Tyr Asn Cys Asp Asp Ile Pro Val	Tyr Asn Lys His 2310 Glu Thr 2325 Ser Tyr	2280 Ile Thr 2295 Leu Leu Ala Asn Val Thr	Thr Arg Leu Glu Leu Tyr 2330 Pro Ala 2345	Lys Thr 2300 Ile Gly 2315 His Cys O Asp Ile	2285 Val Ala) Phe Asn Leu Ile Arg Ser 235	Glu Asn Leu Val 2320 Asp Ala 2335 Phe Leu
2275 Lys Asn Ala Asp 2290 Val Tyr Arg Let 2305 Tyr Asn Cys Asp Asp Ile Pro Val 234 Met Thr Phe Ser	Tyr Asn Lys His 2310 Glu Thr 2325 Ser Tyr Ser Pro	2280 Ile Thr 2295 Leu Leu Ala Asn Val Thr Asp Thr	Thr Arg Leu Glu Leu Tyr 233 Pro Ala 2345 Asn Cys	Lys Thr 2300 Ile Gly 2315 His Cys O Asp Ile	2285 Val Ala The Asn Leu Ile Arg Ser 235 Gly Lys 2365	Glu Asn Leu Val 2320 Asp Ala 2335 Phe Leu 0 Leu Pro
Lys Asn Ala Asp 2290 Val Tyr Arg Let 2305 Tyr Asn Cys Asp Asp Ile Pro Val 234 Met Thr Phe Sen 2355 Cys Arg Leu Gli 2370	Tyr Asn Lys His 2310 Glu Thr 2325 Ser Tyr Co Ser Pro	2280 Ile Thr 2295 Leu Leu Ala Asn Val Thr Asp Thr 2360 Asn Leu 2375	Thr Arg Leu Glu Leu Tyr 233 Pro Ala 2345 Asn Cys Lys Leu	Lys Thr 2300 Ile Gly 2315 His Cys O Asp Ile His Ile Phe His 2380	2285 Val Ala Phe Asn Leu Ile Arg Ser 235 Gly Lys 2365 Ser Leu	Glu Asn Leu Val 2320 Asp Ala 2335 Phe Leu 0 Leu Pro Lys Leu
Lys Asn Ala Asp 2290 Val Tyr Arg Let 2305 Tyr Asn Cys Asp Asp Ile Pro Val 234 Met Thr Phe Ser 2355 Cys Arg Leu Glr 2370 Leu Val Asp Tyr 2385	Tyr Asn 2310 Columnation Glu Thr 2325 Columnation Ser Tyr Columnation Gln Thr Cys Phe 2390	2280 Ile Thr 2295 Leu Leu Ala Asn Val Thr Asp Thr 2360 Asn Leu 2375 Lys Asp	Thr Arg Leu Glu Leu Tyr 233 Pro Ala 2345 Asn Cys Lys Leu Ala Glu	Lys Thr 2300 Ile Gly 2315 His Cys O Asp Ile His Ile Phe His 2380 Glu Asn 2395	2285 Val Ala Phe Asn Leu Ile Arg Ser 235 Gly Lys 2365 Ser Leu Glu Ile	Glu Asn Leu Val 2320 Asp Ala 2335 Phe Leu 0 Leu Pro Lys Leu Glu Val 2400
Lys Asn Ala Asp 2290 Val Tyr Arg Let 2305 Tyr Asn Cys Asp Asp Ile Pro Val 234 Met Thr Phe Ser 2355 Cys Arg Leu Glr 2370 Leu Val Asp Tyr 2385 Glu Gly Leu Pro	Tyr Asn Lys His 2310 Glu Thr 2325 Ser Tyr Go Gln Thr Cys Phe 2390 Leu Leu 2405	2280 Ile Thr 2295 Leu Leu Ala Asn Val Thr Asp Thr 2360 Asn Leu 2375 Lys Asp Ile Thr	Thr Arg Leu Glu Leu Tyr 233 Pro Ala 2345 Asn Cys Lys Leu Ala Glu Leu Asp 2410	Lys Thr 2300 Ile Gly 2315 His Cys Asp Ile His Ile Phe His 2380 Glu Asn 2395 Ser Val	2285 Val Ala Phe Asn Leu Ile Arg Ser 235 Gly Lys 2365 Ser Leu Glu Ile Leu Gln	Glu Asn Leu Val 2320 Asp Ala 2335 Phe Leu 0 Leu Pro Lys Leu Glu Val 2400 Thr Phe 2415
Lys Asn Ala Asp 2290 Val Tyr Arg Let 2305 Tyr Asn Cys Asp Asp Ile Pro Val 234 Met Thr Phe Ser 2355 Cys Arg Leu Glr 2370 Leu Val Asp Tyr 2385 Glu Gly Leu Pro Asp Ala Lys Arg 242	Tyr Asn Lys His 2310 Glu Thr 2325 Ser Tyr Go Gln Thr Cys Phe 2390 Leu Leu 2405 Pro Lys	2280 Ile Thr 2295 Leu Leu Ala Asn Val Thr Asp Thr 2360 Asn Leu 2375 Lys Asp Ile Thr	Thr Arg Leu Glu Leu Tyr 233 Pro Ala 2345 Asn Cys Lys Leu Ala Glu Leu Asp 2410 Thr Thr 2425	Lys Thr 2300 Ile Gly 2315 His Cys Asp Ile His Ile Phe His 2380 Glu Asn 2395 Ser Val Tyr His	Val Ala Phe Asn Leu Ile Arg Ser 235 Gly Lys 2365 Ser Leu Glu Ile Leu Gln Glu Leu 243	Glu Asn Leu Val 2320 Asp Ala 2335 Phe Leu 0 Leu Pro Lys Leu Glu Val 2400 Thr Phe 2415 Ile Pro
Leu Val Asp Tyr 2370 Leu Val Asp Leu Glr 2370 Leu Val Asp Tyr Arg Leu Glr 2370 Leu Val Asp Tyr 2385 Glu Gly Leu Pro 242 Ser Arg Lys Asp 2435	Tyr Asn Lys His 2310 Glu Thr 2325 Ser Tyr Gln Thr Cys Phe 2390 Leu Leu 2405 Pro Lys Leu Phe	2280 Ile Thr 2295 Leu Leu Ala Asn Val Thr 2360 Asn Leu 2375 Lys Asp Ile Thr Phe Leu Met Asn 2440	Thr Arg Leu Glu Leu Tyr 233 Pro Ala 2345 Asn Cys Lys Leu Ala Glu Leu Asp 2410 Thr Thr 2425 Thr Leu	Lys Thr 2300 Ile Gly 2315 His Cys Asp Ile His Ile Phe His 2380 Glu Asn 2395 Ser Val Tyr His	Val Ala Phe Asn Leu Ile Arg Ser 235 Gly Lys 2365 Ser Leu Glu Ile Leu Gln Glu Leu 243 Lys Tyr 2445	Glu Asn Leu Val 2320 Asp Ala 2335 Phe Leu Leu Pro Lys Leu Glu Val 2400 Thr Phe 2415 Ile Pro Ser Asn
Leu Val Asp Tyr 2370 Leu Val Asp Tyr Arg Leu 2370 Met Thr Phe Ser 2355 Cys Arg Leu Glr 2370 Leu Val Asp Tyr 2385 Glu Gly Leu Pro 242 Ser Arg Lys Asp 2435 Ile Leu Leu Asp 2450	Tyr Asn Lys His 2310 Glu Thr 2325 Ser Tyr Gr Ser Pro Gln Thr 2390 Leu Leu 2405 Pro Lys 20 Leu Phe 1 Cys Lys 20 Cys Cys 20 Cys 2	2280 Ile Thr 2295 Leu Leu Ala Asn Val Thr 2360 Asn Leu 2375 Lys Asp Ile Thr Phe Leu Met Asn 2440 Val Ala 2455	Thr Arg Leu Glu Leu Tyr 233 Pro Ala 2345 Asn Cys Lys Leu Ala Glu Leu Asp 2410 Thr Thr 2425 Thr Leu Lys Val	Lys Thr 2300 Ile Gly 2315 His Cys Asp Ile His Ile Phe His 2380 Glu Asn 2395 Ser Val Tyr His Tyr Leu Phe Asp 2460	Val Ala Phe Asn Leu Ile Arg Ser 235 Gly Lys 2365 Ser Leu Glu Ile Leu Gln Glu Leu 243 Lys Tyr 2445 Ile Ser	Glu Asn Leu Val 2320 Asp Ala 2335 Phe Leu Leu Pro Lys Leu Glu Val 2400 Thr Phe 2415 Ile Pro Ser Asn Ser Phe
Leu Val Asp Typ Asp Ala Lys Asp Typ Asp Leu Glr 2370 Leu Val Asp Typ Asp Ala Lys Arg Asp Ala Lys Arg Ser Arg Leu Asp 2435 Ile Leu Leu Asp	Tyr Asn Lys His 2310 Glu Thr 2325 Ser Tyr Gln Thr Cys Phe 2390 Leu Leu 2405 Pro Lys Cys Lys Cys Lys Ser Ser Cys Phe 2470	2280 Ile Thr 2295 Leu Leu Ala Asn Val Thr 2360 Asn Leu 2375 Lys Asp Ile Thr Phe Leu Met Asn 2440 Val Ala 2455 Val Leu	Thr Arg Leu Glu Leu Tyr 233 Pro Ala 2345 Asn Cys Lys Leu Ala Glu Leu Asp 2410 Thr Thr 2425 Thr Leu Lys Val Pro Arg	Lys Thr 2300 Ile Gly 2315 His Cys Asp Ile His Ile Phe His 2380 Glu Asn 2395 Ser Val Tyr His Tyr Leu Phe Asp 2460 Glu Tyr 2475	Val Ala Phe Asn Leu Ile Arg Ser 235 Gly Lys 2365 Ser Leu Glu Ile Leu Gln Glu Leu 243 Lys Tyr 2445 Ile Ser Lys Thr	Glu Asn Leu Val 2320 Asp Ala 2335 Phe Leu Leu Pro Lys Leu Glu Val 2400 Thr Phe 2415 Ile Pro Ser Asn Ser Phe Lys Ser 2480

		_		2500)	Ser			2505	5		_		2510)	
(Glu	Thr	Lys 251		Thr	Phe	Asp	Ile 2520		Val	Asp	Thr	Leu 2525		Asp	Trp
7	Ala	Leu 2530		Pro	Gly	Thr	Lys 2535		Thr	Val	Ser	Ala 2540		Gln	Leu	Val
	/al 2545		Glu	Gly	Asp	Val 2550		Leu	Pro	Leu	Ser 2555		Met	His	Ile	Ala 2560
7	/al	Phe	Pro	Asn	Ala 2565	Gln 5	Ser	Asp	Lys	Val 2570		His	Ala	Leu	Met 2575	
2	Ala	Gly	Сув	Ile 2580		Leu	Ala	Leu	Asn 2589		Ile	Cys	Ser	Lys 2590		Ser
			2599	5		Leu		2600)				2605	5		
		2610)			Ala	2619	5				2620)			
2	2625	5		_		Val 2630)				2635	5				2640
			_		2645					2650)	_			2655	5
				2660)	Cys			2665	5				2670)	
			2675	5		Thr		2680)				2685	5		
		2690)		_	Trp	2699	5				2700)			
	31u 2705	_	Ile	His	Leu	Lys 2710		Leu	Tyr	Glu	Val 2715		Gly	Cys	Val	Pro 2720
7	/al	Asp	Asp	Leu	Glu 2725	Val	Tyr	Leu	Lys	His 2730		Leu	Pro	Lys	Ile 2735	
				2740)	Ala			2745	5				2750)	
1	۱rg	Leu	Ser 275		Ala	Glu	Glu	Leu 2760		Glu	Ile	Lys	Glu 2765		Leu	Phe
		2770)			Leu	2775	5			_	2780)			
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